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OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE. VOLUME THREE, NUMBER TWO.

ANNUAL CATALOGUE—1904-05 WITH ANNOUNCEMENTS FOR 1905-06

STILLWATER, OKLAHOMA
JUNE 1, 1905

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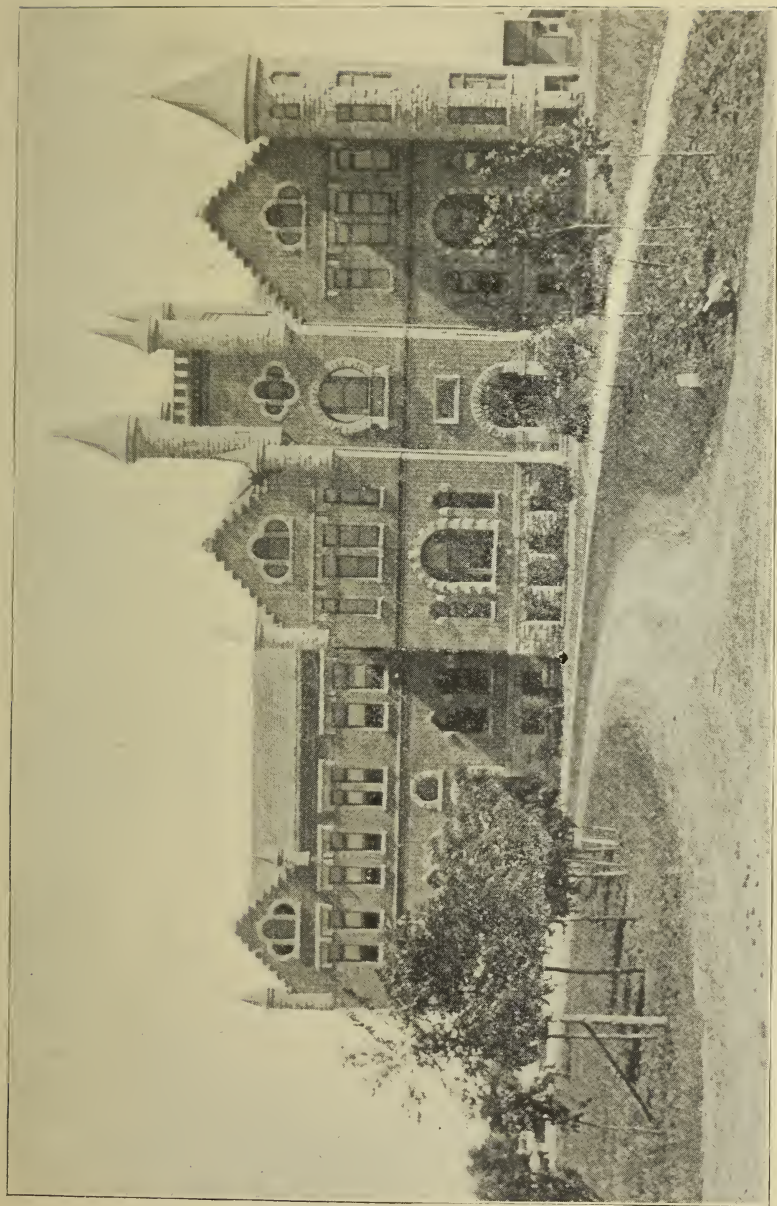
OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE

Annual Catalogue, 1904-5
With Announcements For 1905-6

Stillwater, Oklahoma

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College Calendar, 1905-06

Fall Term begins September 11, 1905; closes December 20, 1905.

Winter Term begins January 2, 1906; closes March 15, 1906.

Spring Term begins March 20, 1906; closes June 6, 1906.

Short Winter Courses begin January 2, 1906; close February 23, 1906.

School of Agriculture and Domestic Economy opens October 17, 1905;
closes March 15, 1906, with Christmas recess as noted above.

Commencement Day, June 6, 1906.

Monday and Tuesday, September 11 and 12, 1905, will be devoted to the
registration of old and new students, and to entrance examinations.

Board of Regents

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Experiment Station Staff

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L. L. LEWIS, M. S., D. V. M.	Veterinarian
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O. M. MORRIS, B. S.	Horticulturist
W. R. SHAW, Ph. D.	Botanist and Entomologist
A. G. FORD, B. S.	Chemist
L. A. MOORHOUSE, B. S. A.	Assistant in Soils and Crops
J. F. NICHOLSON, M. S.	Assistant in Bacteriology
E. H. RILEY, B. S.	Assistant in Animal Husbandry
C. H. TOURGEE, B. S.	Assistant in Agriculture
M. J. OTEY B. S.	Clerk

Faculty

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Director of Experiment Station; Dean of Short Courses.

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Professor of Mechanical and Mining Engineering, and Physics.

JAMES W. MEANS
Professor of Mathematics.

FRANCIS C. BURTIS, M. S.
Professor of Animal Husbandry, Agronomy, and Dairying.

FRANK A. HUTTO, M. S., Ph. D.
Professor of History and Political Science.

WALTER R. SHAW, Ph. D.
Professor of Botany and Entomology, and Geology.

SARAH WINDLE LANDES
Professor of Domestic Economy.

ROBERT H. TUCKER, M. A.
Professor of German and Latin; Associate in English.

OSCAR M. MORRIS, B. S.
Professor of Horticulture.

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Principal of Sub-Freshman Work.

LEWIS C. GRAY, M. A.
Principal of School of Agriculture and Domestic Economy.

AUGUSTUS G. FORD, B. S.
Station Chemist and Instructor in Agricultural Chemistry.

LLEWELLYN A. MOORHOUSE, B. S. A.
Assistant in Soils and Crops.

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Assistant in Mechanical Engineering.

ARLINGTON P. LITTLE, B. S.
Assistant in Electrical Engineering.

JOHN F. NICHOLSON, M. S.
Assistant in Bacteriology.

EDWARD H. RILEY, B. Agr.
Assistant in Animal Husbandry.

JAMES F. LAWRENCE, A. B.
Instructor in Mathematics.

CARL H. TOURGEE, B. S. A.
Assistant in Dairying.

ETHEL V. WALKER, B. S.
Assistant in English and Latin.

JESSIE E. MORROW, B. S.
Assistant in Domestic Economy.

Z. J. CAWOOD
Principal of Business School, Official Stenographer, and Registrar.

GEORGE B. GELDER
Superintendent of Printing Department, and Instructor in Printing.

JOHN I. HASTINGS
Assistant in Shop Work.

CORA MILTIMORE, B. S.
Librarian.

HARRY I. STEVENS, B. S.
Assistant in Chemical Laboratories.

MONROE J. OTEY, B. S.
Clerk.

Oklahoma Agricultural and Mechanical College

Founding and History

An act of congress, approved July 2, 1862, gave to each state which accepted its provisions within two years 30,000 acres of government land for each one of its representatives in congress, the proceeds to be applied to the endowment and maintenance of the agricultural, or as Senator Morrill, the author of the act, preferred to call them, the "national" colleges.

A subsequent act, approved August 10, 1890, extended the endowment of these institutions by an appropriation of \$15,000 a year, increasing each year by the sum of \$1,000 until the annual amount should be \$25,000. This limit was therefore reached in 1900.

On March 7, 1887, an act of congress was approved, appropriating annually to colleges thus established \$15,000, for the maintenance of experiment stations "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science".

This institution receives the benefit of the last two acts of congress only. By an act of the legislative assembly of Oklahoma, which took effect December 25, 1890, the provisions of these acts were assented to, and the College and Experiment Station located at Stillwater, in Payne County. The institution opened in the fall of 1891.

Scope of Work

It has been said above that this institution does not receive the benefit of the act of 1862. In order, however, to understand clearly the scope of work contemplated in these institutions the language of both acts should be quoted. The act of 1862 makes its grant for "the endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding the other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life". The appropriation under the act of 1890 is to be applied "only to instruction in agriculture, the mechanic arts, and the English language, and the vari-

ous branches of mathematical, physical, natural, and economic science, with special reference to their application in the industries of life, and to the facilities for such instruction."

From these two expressions of the legislative purpose it will be seen that the popular impression that the courses of study in these institutions are narrowly confined within the limits marked by the two words "agricultural" and "mechanical" is erroneous. While special facilities are provided, and special instruction is given, in agriculture and its branches, and in the mechanic arts, it is quite within the province of this institution to give specialized training in biology, in chemistry, in political science, in domestic economy, in commercial lines, and in the English language and literature. Even this liberal limitation may be extended within reasonable bounds—determined in accordance with the general nature of the institution—by the territory, insofar as it chooses to pay for the additional instruction. In a word the law contemplates the providing, through these institutions, of a "liberal and practical" education. It does not lose sight of the inspiration of the higher learning, but it has particularly in view the equipping of the student for efficiency in the activities of life.

The several courses of instruction, as set out in subsequent pages, will be seen to be arranged upon this conception of the scope of our work.

Resources

Morrill Fund The Oklahoma Agricultural and Mechanical College receives from the Government every year the sum of \$22,500. This is the \$25,000 "Morrill Fund" above referred to, less \$2,500 set apart from it by the territorial legislature for the benefit of the Agricultural and Normal University at Langston. It is to be expended for instruction and appliances only, the territory of Oklahoma providing buildings, repairs, etc.

Hatch Fund The Agricultural Experiment Station, which is a department of the college, receives from the United States Government an annual appropriation of \$15,000, to be used solely for experimentation and the publication of results. This is known as the "Hatch Fund."

Territorial Tax Levy The territorial law provides for a sufficient levy on the taxable property of the territory for the benefit of the college to realize \$17,500 per year.

Land Lease Money The law also sets apart one-seventh of the income derived from the rental of the lands granted to the territory for the benefit of the institutions of higher learning. This amounts to about \$8,000 a year.

Vaccine Fund A law passed by the Legislative Assembly of 1905 provides for an annual appropriation of \$2,500 for the manufacture and free distribution within the territory of vaccine by the Agricultural Experiment Station.

Other Sources There are slight sources of income, not necessary to detail here, which raise the total annual income of the college and station to about \$67,000; but, as above stated, \$15,000 of this amount is applicable only to expenses of experimentation, and not available for purposes of instruction.

Equipment

Farm and Grounds The campus, farm, and experiment station grounds embrace a tract of 1000 acres. This great increase in the land owned by the college for farm and experiment station purposes is due to an act of Congress approved February 8, 1905, donating a section of school land adjoining the old college farm on the west to the institution. The land now constituting the college farm represents all character of Oklahoma soils in ample measure, from the choicest bottom land to inferior upland, and renders possible experimentation in agricultural production in Oklahoma along all lines and on a liberal scale.

Buildings Five chief buildings are occupied for purposes of instruction: Library Hall, used, in addition to the accommodation of the library and reading rooms, for the departments of English, Latin and German, History and Political Economy, Zoology and Veterinary Science, Domestic Economy, Botany and Entomology, and the general auditorium—with lecture rooms, toilet rooms, etc. in the basement; Central building, used for the administrative offices, and for instruction in English, mathematics, business courses, etc.; the Chemistry building, used for instruction in chemistry, and for the offices and the operations in chemistry of the Experiment Station; the Engineering building, used for the offices, lecture rooms, drawing rooms, and reading room of the Department of Engineering, with adjoining buildings containing the shops and laboratories of the department; and the dairy building, used for instruction and practical operations in dairying. In addition to these a small wooden building is devoted to instruction in horticulture, and certain rooms in the college barn are fitted for instruction in stock-judging, dairying, etc.

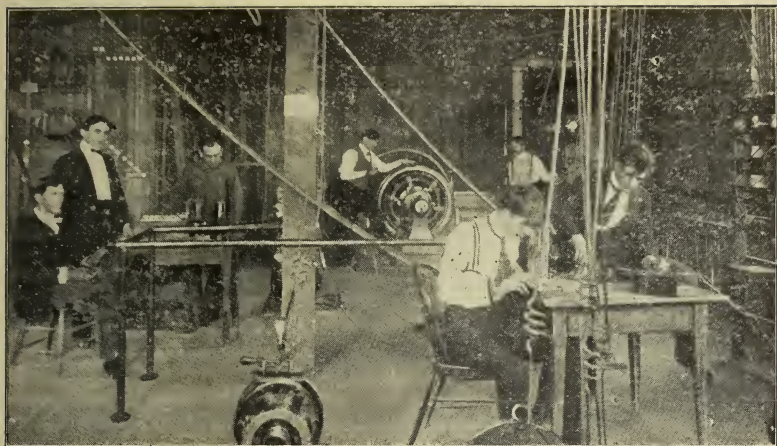
Additional Buildings The last legislative assembly appropriated \$92,500 for the erection of additional buildings, to consist of an agricultural building, additional shops for the engineering department, and a gymnasium. The first named will constitute for the present the main building of the college, containing besides the lecture rooms, museums,

laboratories, etc., of the departments of agriculture and horticulture, and the administrative offices of the college and station. It will be built during the coming year. It is hoped that the additional shops and the gymnasium will be ready for occupancy at the opening of the fall term of 1905.

Library The college has a well selected library of about 10,000 volumes. The books are kept in fire-proof stack rooms, and a commodious reading room is provided immediately adjoining. Students are permitted under proper restrictions to take books to their rooms. The best reference books and the leading periodical publications are at the disposal of students.

Scientific Appliances In chemistry, physics, mineralogy, botany, zoology, entomology, physiology, agriculture, horticulture, and veterinary science the college is equipped with the latest and best appliances and apparatus, consisting of collections, models, charts, microscopes, balances, etc., representing an outlay by the government of approximately \$90,000.

Mechanical Department The equipment of this department includes a machine shop, a carpenter and pattern-making shop, a blacksmith shop, a foundry, and two drawing rooms, besides the electrical engineering laboratory. The equipment of the machine shop includes lathes, shaper, milling machine, planer, a universal grinding machine, drill press, and an extensive assortment of small tools. The wood working shop is supplied with a circular saw, band saw, wood turning lathes, a pattern-maker's lathe, and work benches with complete sets of carpenter tools. The blacksmith shop contains eight down draft forges and four hand forges, each supplied with a complete set of blacksmith tools. The foundry is supplied with an 18-inch cupola, core oven, sand sifter, and foundry benches and tools. The air blast is furnished by an electrically driven fan. In the electrical engineering laboratory the machinery has been selected and arranged in such a manner as to afford students the greatest facility for acquiring a thorough knowledge of different types of electrical machinery and their management. Especial attention has been devoted to alternating polyphase machinery—justified, it is believed, by the rapid development of this branch of engineering. The equipment includes a 30-kilowatt dynamo, directly connected to a 10x10 automatic engine furnishing power for the other electrical machines, which include direct and alternating current dynamos and motors, static and phase-changing transformers, and synchronous converters, all of the latest designs. The department is well supplied with necessary apparatus, including voltmeters, ammeters, and wattmeters of wide range, as well as galvanometers, and other instruments of greater precision. There is also a good selection of physical apparatus for



CLASS IN ELECTRICAL ENGINEERING



CARPENTER SHOP

purposes of demonstration and instruction. The building equipment of this department consists of an engineering building, containing lecture rooms, drawing rooms, reading rooms, offices, and bath rooms; a shop building, containing the mechanical, electrical, and wood-working laboratories, the printing office, and blacksmith shops; the boiler house, containing the central heat and power plant; and a foundry. The capacity of the shops will be more than doubled by the new building referred to on a previous page, to be erected during the summer of 1905.

Department of Chemistry This department is located in the chemistry building, occupying the basement, a lecture room, quantitative laboratory, and offices on the first floor, the entire second floor, and the attic—the remainder of the building being occupied by the experiment station. The lecture room seats comfortably seventy-five students, besides containing desks and extensive equipment for demonstration purposes. Quantitative, qualitative, and private laboratories and sample rooms occupy the second and third floors and one room on the first floor. A special agricultural laboratory is fitted up for senior students in agricultural chemistry. The laboratories are fitted with work desks designed to meet the demands of the student. Each student has before him two gas cocks, two water cocks, and a trough of running water, and thus need never leave his desk unless it be for a special reagent or for work at the hydrogen-sulphid hood. There is located in the basement of the building a 150-light Tirrill equalizing gas machine, which furnishes light and laboratory heat of the finest quality. The department is equipped with the best of modern apparatus, glassware, and chemicals. This large supply of working material greatly facilitates independent laboratory work. In more advanced work the student is supplied with a complement of burettes, pipettes, graduated flasks, desiccators, Gooch crucibles, etc. It is the experience of instructors in teaching quantitative analysis that the best results are obtained by having not more than three, preferably two, students for each analytical balance. In recognition of this, the department is equipped with two E. & A., one Rueprecht, one Staudinger, and seven Sartorius analytical balances. There are in addition to these, one E. & A. assay balance, one gas analysis balance, and three other balances for rough weighing. In sugar and sugar beet analysis, aside from the ordinary methods used the student is taught the use of the polariscope and has at his disposal one Schmidt and Haensch polarscope, equipped with a double set of observation tubes. In the study of mineralogy there is a well chosen collection of several hundred specimens, supplemented by about 300 pounds of working material. Aside from these minerals there are 75 glass and 60 wooden crystal models, and 21 models of precious stones.

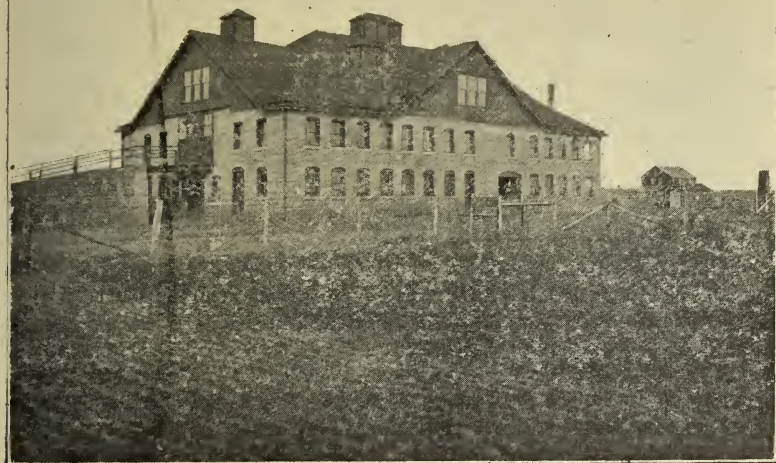
Botany and Entomology This department occupies the second floor of the west wing of Library Hall. These rooms are used as laboratories, dark room, store room, lecture room, and office, the lecture room being in direct communication with the biological museum. The equipment of the laboratories includes twenty-four compound microscopes of recent manufacture (five of Zeiss and nineteen of Bausch & Lomb make); a number of compound microscopes designed for special purposes; sixteen simple microscopes, and a large assortment of lenses; a Zimmerman-Minot rotary microtome, a Bausch & Lomb sliding microtome, and several hand microtomes; camera lucida; photographic and photomicrographic cameras, and accessory apparatus; several hundred microscopic preparations of simple plants and plant tissues; a large collection of preserved plant tissues and pathological specimens for practical study; a fine assortment of chemicals, reagents, and stains; an ample supply of glassware; and a variety of special apparatus for the study of plant physiology. The museum and lecture room contain a large herbarium which includes authentic collections of fungi, algæ, lichens, and mosses; the botanical and entomological collections of the experiment station, which are available for reference; Auzoux models illustrating the anatomy of flowers and fruits; several Auzoux models showing the anatomy of insects; preparations showing the metamorphoses of different types of insects; a set of Kny botanical charts showing the minute details of plant structure and reproduction; a set of Peter charts that show representative plants of many orders; and collections of woods, fibers, seeds, etc., and also of economic, medicinal, and agricultural plants. There are several collections of hardy herbs, shrubs, and trees planted on the college grounds, from which material may be obtained for the use of classes.

Zoology and Veterinary Science This department occupies quarters in Library Hall, consisting of laboratories for general biological work, and a lecture room. The apparatus for general biological work consists of twenty compound Zeiss and Lietz microscopes, with complete sets of eye pieces and objectives, micrometers and cameras, microtomes, thirty sets of dissecting instruments, and photomicrographic apparatus. The department is also well supplied with dissectible models of various types of animals, including an Auzoux model of the horse; with skeletons of most of the lower animals and of man; and with numerous prepared skins of birds and animals for purposes of demonstration and instruction. For the work in physiology there are models of the various organs of the body, wall charts, and skeletons, mounted and unmounted.

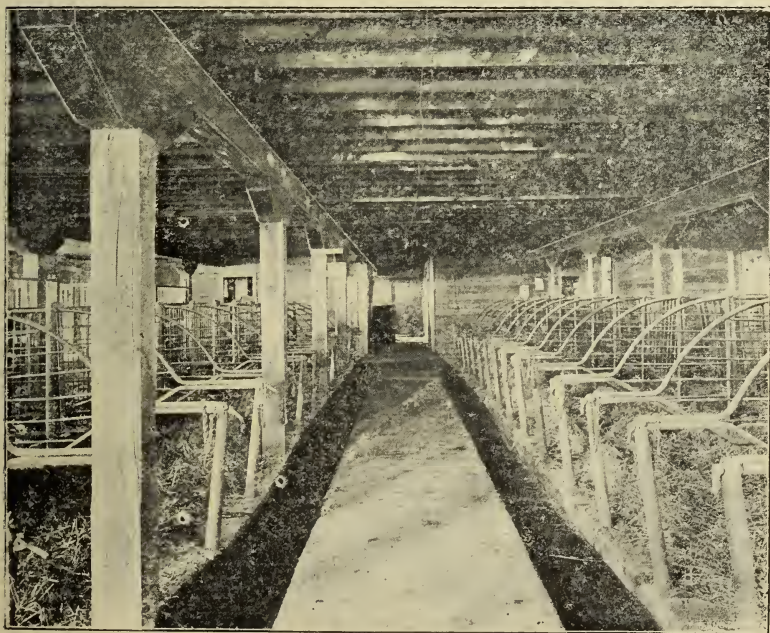
Department of Agriculture Instruction in this department is given in the basement of Central building and in the college barn. The latter is a two-story brick structure, 60 x 96 feet, which, in addition to providing storage space for hay and grain and stabling for live stock,

contains a room for stockjudging. The feed lots and corrals have been rearranged in order that the different breeds of live stock may be safely and economically handled. The agricultural and horticultural departments receive great benefit from the experiment station which is located at the college. This branch of the institution has a large number of experiments continually under way, which constitute the most valuable object lessons to the students. The farm includes 1000 acres, three-fourths of which are devoted to agriculture. The experiment station uses all the fields for crop experiments, and the student sees the various crops under cultivation; and the study of crop production is further illustrated by a good collection of grasses and field crops exhibited in bundles and show bottles. The live stock equipment affords an excellent opportunity to study the improved breeds of stock. The pure bred stock represented is as follows: cattle, Shorthorns, Herefords, Aberdeen Angus, and Red Polls; swine, Poland Chinas, Berkshires, Duroc-Jerseys, and Chester Whites; sheep, Shropshires and Cotswolds; horses, Percheron. In addition to the pure breeds of the various classes of stock, grades of the different breeds are kept for comparison. Breeds not represented on the farm are studied from engravings conveniently arranged on wall charts and in albums. The large number of feeding experiments carried on at all times by the experiment station affords the students ample opportunity to apply the principles laid down in the class room. Samples of all standard farm machinery are kept in a commodious implement room where easy access can be had to them, and the student has the opportunity to see these in operation, many of them under draft tests. A farm dairy, fully equipped with hand separators, milk tests, cream vats, milk coolers, and other apparatus which aid in the production of high grade dairy products, is in operation.

Department of Horticulture This department is equipped with a complete line of garden seeders; tools for lawn work, spray pumps with fittings; eighteen complete sets of garden tools; complete models of all common varieties of apples, peaches, plums, pears, and cherries; charts showing the diseases of fruits and garden plants; an herbarium of cultivated plants showing most of the different plants cultivated in the United States; five complete sets of instruments used in plant breeding; five complete microscopes and accessories. In the way of practical operations, this department is well situated, having at its command the extensive vineyards and orchards of the experiment station. The horticultural grounds include sixty acres with more than fifty thousand trees and vines. For instruction in forestry a plantation of forty thousand trees is available, both for observation and study, and for instruction in propagation, pruning, and transplanting.



THE COLLEGE BARN



BARN INTERIOR

**Department
of Domestic
Economy**

This department is located in the rooms on the first floor of the west wing of Library Hall. The department includes a kitchen laboratory, class dining room, sewing room, office, and store room. The kitchen laboratory has equipment sufficient to enable fourteen students to work at one time, and consists of fourteen conveniently arranged desks, furnished with all the dishes and cooking utensils necessary for individual work; cases for the large utensils and supplies and illustrative material; one gas range, one kerosene range, and three small gas burners on the work desks; charts and samples to aid in teaching and studying the composition and preparation of the different foods. The equipment of the class dining room consists of a full set of dining room furniture and dishes used by the classes studying dining room management and serving. The sewing room is equipped with one large cutting table and six sewing tables, all made with drawers in which to keep garments and material; six sewing machines of different makes; a large mirror for use in dress fitting; illustrative material, such as cotton, silk, and flax fibers, needles, etc., and twenty-four sewing chairs.

**Other
Departments**

The departments of the English language and literature, of foreign languages, and of history and political economy are properly supplied with facilities for instruction, and are represented with special fullness in the library. The department of mathematics and civil engineering has extensive appliances for demonstration, instruction, surveying, and other practical work. The printing office is suitably equipped for instruction, which is its primary purpose. The regular college publication, *The College Paper*, is issued by this department, under student management, and the general job work of the college, including the annual catalogue, is done by it. The business department is equipped with eight typewriters, one Elliott & Hatch book typewriter, and other necessary appliances.

Agricultural Experiment Station

This department of the college is maintained for the purpose of conducting experiments relating to the development of our agricultural interests and the widening of our knowledge on subjects in any way connected with farm life. Experiments in crop production, stock raising and feeding, fruit and vegetable growing, are conducted on a 360 acre farm belonging to the college. An additional tract of 6-0 acres granted by act of Congress, and described on a previous page, will be available for experimental purposes next year. In the laboratories animal and plant diseases, insects, the composition of feeding stuffs, and kindred subjects are investigated by trained specialists, each of whom has devoted many years of study and preparation for the particular class of work committed to him.



A CLASS IN COOKING



ILLUSTRATIVE MATERIAL—DEPARTMENT OF DOMESTIC ECONOMY

While the station takes no direct part in instruction, its work affords a valuable source of illustration and stimulus to students in every branch of science. With but two exceptions, members of the station staff are also engaged in instruction in the college. Students showing special aptness are frequently employed in the work of the station and thus gain valuable experience and are enabled to earn something toward paying their expenses.

The chief purpose of the station is to discover new truths and new applications of old ones. It properly leaves to the college the work of instruction in systematized knowledge.

Bulletins reporting results of completed investigations are issued by the station and sent free to all who desire them.

Courses of Instruction

No material changes have been made in requirements for entrance and in courses of instruction since the issuance of the last year book. The preparatory department has been discontinued, though incidental instruction in the common school branches will be given in the two years' School of Agriculture and Domestic Economy, to the analysis of which on pages 24-25 attention is particularly directed. All regular collegiate courses cover a period of five years, running through the Sub-Freshman, Freshman, Sophomore, Junior, and Senior classes, and leading to the degree of Bachelor of Science. The courses are as follows:

I.—General Science Course.

II.—Agricultural Course.

III.—Engineering Course.

In the General Science course the student may take the general scientific and literary studies or he may take majors in chemistry, botany, or zoology. The Agricultural course and the Engineering course are specialized and technical courses respectively in agriculture, horticulture, and animal husbandry, and in mechanical, civil, and electrical engineering.

Admission to Sub-Freshman Class

The sub-freshman class has been established to secure, under competent instruction, a higher degree of efficiency in the studies which underlie the more advanced collegiate work, particularly in English and mathematics. Applicants for this class may be admitted without examination on satisfactory records from the eighth grade of city schools, or on diplomas from the common schools. Not holding these, they must pass a satisfactory examination in reading, spelling, penmanship, geography, United States history, grammar, and arithmetic. Applicants for this class must not be less than fourteen years of age.

Admission to Freshman Class and to Advanced Standing

Applicants for admission to the freshman class must pass an examination in the studies above mentioned, and in higher arithmetic, algebra to quadratic equations, physiology, physical geography, and general history. Students from high schools who have satisfactorily completed the ninth grade may be admitted on trial without examination. Graduates of approved high schools may be admitted to the sophomore class, on their diplomas, without examination.

General Science Course

This course is arranged to the end first, of offering a good general and practical education along scientific and literary lines; second, of giving major work in specific natural sciences, together with an approved amount of instruction in mathematics, literature, language, history, political economy, and other general subjects. Students in this course expecting to specialize in chemistry are advised to take German; all others may take German or Latin.

The Course in Detail

[The figures indicate the number of recitation hours per week; figures in parentheses indicate hours of practical work per week.]

Sub-Freshman Year

FALL TERM	WINTER TERM	SPRING TERM
Higher Arithmetic.....5	Algebra.....5	Algebra.....5
English.....5	English.....5	English.....5
Physical Geography.....4	Physical Geography ($\frac{1}{2}$ term) 4	Physiology.....4
Bookkeeping.....5	Physiology ($\frac{1}{2}$ term).....4	General History.....5
Spelling and Writing.....(2)	General History.....5	Spelling and Writing.....(2)
	Spelling and Writing.....(2)	

NOTE: After fall and winter terms, students proficient in spelling and writing will take printing.

Freshman Year

Rhetoric.....3	Rhetoric.....3	Etymology and Structure...3
German or Latin.....5	German or Latin.....4	German or Latin.....4
Algebra.....4	Algebra.....4	Algebra.....4
Physics.....4	Geometry.....5	Geometry.....5
Sewing—women.....(2)	Sewing—women.....(4)	Sewing—women.....(4)
Cooking—Women.....(2)	Cooking—women.....1 (2)	Cooking—women.....1 (2)
Freehand Drawing.....(4)	Geometrical Drawing—men (8)	Stock-judging—men.....1 (6)
Horticulture.....2		
or Wood Work.....(4)		

Sophomore Year

Advanced Rhetoric.....2	Theme work.....2	Theme work.....2
German or Latin.....4	German or Latin.....4	German or Latin.....3
Geometry.....4	Trigonometry.....4	Trigonometry—men.....3
Inorganic Chemistry...3 (4)	Inorganic Chemistry...3 (4)	Inorganic Chemistry...2 (4)
Zoology.....3 (4)	English History.....5	Botany.....4 (4)
	Public Speaking.....(2)	Sewing—women.....1 (4)
		Cooking—women.....1 (2)
		Surveying—men.....(4)

Junior Year

English Literature.....2	English Literature.....2	American Literature...2
German or Latin.....3	German or Latin.....3	German or Latin.....3

Physics	4	2	Physics.....	4	Entomology or Physi-	3	4
Histology	10	2	Advanced Physiology	10	cal Chemistry	10	4
Botany			Botany		Cellular Biology		
Feeds and Feeding			Farm Dairying		Botany		
Civics and Constitutional Law			Civics and Constitutional Law		Crops		
Analytical Geometry			Analytical Geometry		Calculus		
Theoretical Chemistry	2	2	Organic Chemistry	2	Psychology	2	2
Domestic Economy (women)			Domestic Economy (women)		Organic Chemistry		
			Public Speaking.....	2	Electricity		
					Domestic Economy (women)		

NOTE: The student is required to elect any two of the subjects above included in brackets

Senior Year

Literature or Agricultural Chemistry	3	Literature or Agricultural Chemistry	3	Literature or Agricultural Chemistry	3
Geology.....	2	Business Forms and Correspondence or General History.....	3	Current History.....	3
Law.....	3	Bacteriology.....	2	Bacteriology.....	4
Social and Industrial History, Mineralogy, or Agricultural Physics.....	5	Forestry, Metallurgy and Assaying or Domestic Economy (women)	5	Industrial Chemistry, Botany, Astronomy or Feeds and Feeding and Plant Breeding.....	5
Botany, Embryology, General Chemistry, Calculus, or Sociology.....	4	Calculus, Botany, Industrial Chemistry, or Political Economy.....	5	Thesis.....	10

NOTE: The right is reserved not to give any elective offered during the Junior and Senior years for which fewer than five students apply, although the effort will always be made to accommodate every student in this respect.

Agricultural Course

This course is designed to afford scientific training and practical knowledge to young men who expect to follow agriculture as a life work, or to prepare themselves as instructors of others therein. A two years' course (twenty weeks in each year) is also offered, detailed announcement of which is made in another place. The short winter courses in agriculture and in dairying (eight weeks) will be given as heretofore for the benefit of farmers who are not in a position to matriculate as regular students of the institution.

The Course in Detail

Sub-Freshman Year

The Same as in General Science Course.

Freshman Year

FALL TERM	WINTER TERM	SPRING TERM
Rhetoric.....3	Rhetoric.....3	Etymology and Structure.....3
German.....5	German.....4	German.....4
Algebra.....4	Algebra.....4	Algebra.....4
Physics.....4	Geometry.....5	Geometry.....5
Freehand Drawing.....(4)	Woodwork or Geometrical Drawing.....(8)	Stock-judging.....1 (6)
Horticulture.....2		

Sophomore Year

Advanced Rhetoric.....	2	Theme Work.....	2	Theme Work.....	2
Geometry.....	4	Trigonometry.....	4	Trigonometry.....	3
Soils and Fertility.....	3 (2)	Inorganic Chemistry.....	3 (4)	Horticulture.....	3
Zoology	3 (4)	Pomology	1	Inorganic Chemistry.....	2 (4)
Inorganic Chemistry.....	3 (4)	Breeds	5 (4)	Botany.....	4 (4)
		Public Speaking.....	(2)	Surveying.....	(4)

Junior Year

Physics.....	4 (2)	Physics.....	4	Entomology.....	3 (4)
Feeds and Feeding.....	5	Farm Dairying.....	3 (4)	Animal Breeding.....	5
Botany.....	5	Botany.....	5	Crops	5
Theoretical Chemistry.....	3 (4)	Advanced Physiology.....	5	Cellular Biology.....	5
		Literature	1		

Senior Year

Agricultural Chemistry.....3	Agricultural Chemistry.....3	Agricultural Chemistry.....3
Agricultural Physics 4 (2)	Bacteriology.....2 (4)	Bacteriology.....2 (4)
Geology.....4 (2)	Forestry.....5	Current History.....3
Law.....3	Farm Economics.....2	Feeds and Feeding.....3
Embryology.....4	Veterinary Medicine.....3	Plant Breeding.....1 (2)
	Evolution of Cultivated Plants.....3	Thesis.....(10)

Engineering Course

This course is intended to prepare young men for positions of usefulness and responsibility in the mechanical, civil, and electrical professions. The early part of the course is devoted to a thorough grounding in English, mathematics, and physics, mechanical drawing and shop work also being given. The last two years are devoted to the more technical engineering studies, including the higher mathematics, machine designing, steam machinery, and strength of materials. An electrical course is given during the last two years, embracing the subjects of electrical measurements, direct and alternating current dynamos, motors, transformers, systems of power distribution, electric lighting, electric railways, etc. A civil engineering course is also given during these two years, embracing the subjects of surveying, graphical statics, framed structures, and hydraulic, sanitary, highway, and irrigation engineering.

*The Course in Detail***Sub-Freshman Year**

The Same as in General Science Course

Freshman Year

FALL TERM	WINTER TERM	SPRING TERM
Rhetoric.....3	Rhetoric.....3	Etymology and Structure...3
German.....5	German.....4	German.....4
Algebra.....4	Algebra.....4	Algebra.....4
Physics.....4	Geometry.....5	Geometry.....5
Freehand Drawing.....(4)	Woodwork.....(8)	Foundry and Pattern Making.....(8)
Horticulture.....2		
or Wood Work.....(4)		

Sophomore Year

Advanced Rhetoric.....2	Theme Work.....2	Theme Work.....2
German.....4	Trigonometry.....4	Trigonometry.....3
Geometry.....4	Inorganic Chemistry.....3 (4)	Inorganic Chemistry.....2 (4)
Algebra.....2	Descriptive Geometry.....5	Descriptive Geometry...5 (4)
Inorganic Chemistry.....3 (4)	Mechanical Drawing.....(6)	Mechanical Drawing... (4)
Mechanical Drawing... (6)	Public Speaking.....(2)	Surveying.....(4)

Junior Year

Physics.....4 (2)	Physics.....4	Electricity and Magnet- ism.....4 (2)
Analytical Geometry.....5	Analytical Geometry.....5	Calculus.....5
Kinematics.....3	Applied Mechanics.....3	Applied Mechanics.....4
Steam Boilers.....3	Valve Gears.....3	Indicators.....2
Blacksmith Shop.....(6)	Machine Shop.....(8)	Machine Shop.....(8)
Mechanical Drawing.....(2)	Mechanical Drawing.....2	or Civil Engineering...6
or Civil Engineering..7	or Civil Engineering...8	
	Literature.....1	

Senior Year

Calculus.....4	Calculus.....4	Current History.....3
Law.....3	Business Forms and Correspondence.....3	Thermodynamics.....5
Machine Design.....4 (4)	Machine Design.....4 (6)	Machine Design.....4
Electrical Engineering or Civil Engineering...13	Electrical Engineering...4 (4) or Civil Engineering...13	Electrical Engineering...3 (2) or Civil Engineering...8
		Thesis.....(8)

*The subjects under the term "Civil Engineering" are surveying, graphical statics, framed structures, hydraulic, sanitary, highway, and irrigation engineering, the disposition of time among these subjects to be arranged by the instructor, who will be elected in June, 1905.

School of Agriculture and Domestic Economy—Two Years of Twenty Weeks Each

This course is arranged with the purpose of providing instruction in agriculture and domestic economy requiring less time than the four years' course, and yet more extensive and systematic than the eight weeks' winter course. Such common school work as can be given without prejudice to the scientific work is offered in addition. Applicants must be at least fourteen years of age, and fairly well advanced in the common branches. To meet the conditions of many young men and women in the country the course is arranged to begin about October 15, when the fall work on the farm ceases to be pressing, and to close March 15, when the services of the student are likely again to be needed at home. The present year the course will begin October 17, 1905, and close March 15, 1906. Students who are reasonably proficient in the common school branches, and students of mature years may take the agricultural and domestic economy work of both years in one, if they desire, and be excused from the other work of the course.

Following is the course in detail—the figures indicating the number of recitation hours per week, figures in parentheses indicating hours of practical work per week.

First Year**Fall Term—Ten Weeks**

Arithmetic.....	5
Spelling.....	3
Geography.....	3
Writing.....	2
Livestock (Boys).....	3
Sewing (Girls).....	(4)
Stockjudging (Boys).....	(8)
Cooking (Girls).....	2 (2)
Drawing (Girls).....	(4)

Winter Term—Ten Weeks

Arithmetic.....	5
Grammar.....	4
U. S. History.....	4
Veterinary Medicine, and Botany and Entomology.....	3
Sewing (Girls).....	(4)
Veterinary Medicine, and Botany and Entomology (Boys).....	(4)
Drawing.....	(4)
Cooking (Girls).....	2 (2)

Second Year**Fall Term—Ten Weeks**

Grammar.....	5
Civil Government and Commercial Law }	3
Arithmetic.....	3
Horticulture and Floriculture.....	3
Dairying.....	2
Poultry.....	2
Gardening.....	(2)
Dairying.....	(2)

Winter Term—Ten weeks

Grammar.....	5
Applied Arithmetic.....	5
Soils and Crops.....	5
Stock Feeding (Boys).....	3
Sewing (Girls).....	(6)
Chemistry.....	3

SPRING TERM—The spring term will be devoted to a Nature Study course for teachers and others, together with advanced instruction in arithmetic, grammar, composition, geography, U. S. history, physiology, civil government, elementary physics, and elementary bookkeeping. Burkett, Stevens, and Hill's "Agriculture for Beginners" will be used, and in addition lectures will be given on the following subjects: The Place of Agriculture in the Public Schools, Garden Plots for School, Beautifying School Grounds, Bacteriology in the School, Hygienic Conditions of School Life, Oklahoma Soil Studies, Stock Feeding, Care and Management of Live Stock, Milk and its Products, and Improvement of Farm Crops.

Short Winter Courses in General Agriculture and in Dairying

During a portion of the winter term practical instruction is given in matters directly related to farming, stock raising, and fruit growing, and the management of steam engines, with special attention to machinery used on farms. Any person over eighteen years of age may take this work, no examination for admission being required. A circular describing the work of these courses in detail will be issued in November. They cover eight weeks in January and February of each year. For the coming year they will begin January 2, 1906, and close February 23, 1906.

The following list contains the work which is given:

- Principles of Breeding—4 lectures
- Study of Breeds—10 lectures
- Stock-judging—10 lectures
- Diseases of Live Stock—18 lectures
- Stock Feeding—12 lectures
- Farm Dairying—21 lectures
- Crops for Oklahoma—18 lectures
- Steam Engines and Boilers—8 lectures
- Maintaining Soil Fertility—9 lectures
- Orchard and Small Fruits—18 lectures
- Troublesome Insects—9 lectures
- Elementary Botany—9 lectures
- Dairy Bacteriology—9 lectures
- Farm Machinery and Equipment—12 lectures
- Farm Hygiene; Water Supply—10 lectures
- Legislation and Laws Affecting Farmers—12 lectures
- Farm Accounts, Mortgages, etc.—12 lectures

Work in blacksmithing, steam engines and boilers, veterinary practice, practical horticulture, and dairying will be given in the afternoon insofar as the facilities of the college will allow.

The lectures will be supplemented by practical work in the dairy, barns, shops, and orchards, designed to fix and illustrate the methods and practices advised. It is practical instruction throughout and planned to give the most that is possible in so short a time.

Short Course in Stockjudging and Seed Selection

A short course in stockjudging and seed selection lasting for one week will again be given at some time during January or February. The dates and program will be announced later.

Business Course

A complete business course is offered to students having the qualifications to enter the sub-freshman class. The course is as follows:

Fall Term: Bookkeeping, spelling and writing, commercial arithmetic, commercial law, English. Or, Stenography and typewriting, spelling, English.

Winter Term: Advanced bookkeeping, banking and business correspondence, spelling and writing, commercial arithmetic, English. Or, Stenography and typewriting, spelling, English

Spring Term: Bookkeeping, commercial arithmetic, English. Or, Stenography and typewriting (including manifolding, letter-press work, typewriter dictation), English.

Special Work

Students of reasonably mature years and adequate preparation are permitted to select special work under the advice of the faculty.

Departments of Instruction

Under this title a more extended account of the topics covered in the different departments will be given.

The English Language and Literature

***The President
Professor Tucker***

The study of the English language and literature runs through the five years of the General Science course.

1. **ENGLISH.** This work extends through the sub-freshman year. It is designed to prepare the student for an appreciative study of rhetoric and composition, as taken up in the freshman year. It comprises; (1) A comprehensive review of English grammar. (2) The study of practical English, in connection with a suitable manual, with the especial object of checking up the ordinary errors and slovenliness of speech. (3) The reading of a number of standard English classics.

2. **RHETORIC.** This subject occupies the first two terms of the freshman year. The principles of inventions, the elements of style, the different forms of composition, and other matters belonging to elementary rhetoric are here taken up preparatory to the advanced study of the same subject the next year and to the writing of formal themes. In connection with this work careful and painstaking instruction is given in punctuation, in letter writing, and in the preparation of manuscript for the press, as well as in the art of expression, both oral and written.

3. **ETYMOLOGY AND STRUCTURE.** The spring term of the freshman year is devoted to this work. It is, in brief, the study of word building, with special reference to the Latin and Saxon elements of the language.

4. **ADVANCED RHETORIC AND THEME WORK.** This extends through the sophomore year. It covers in a more ample and philosophical form the work of the freshman year and gives almost exclusive attention during the last half of the year to practical theme writing. The work begins with the writing of narratives, both imaginative and within the student's experience, followed by newspaper writing, argumentative writing, and so on to abstract themes. In addition to the regular classroom work in the freshman and sophomore years, a limited number of books are assigned as parallel reading. These books are selected with a view to their adaptability and application to the work in hand, and they constitute the basis of examination at stated intervals during the term.

5. **LITERATURE.** The Junior year in this department is given to the study of English and American literature. While this year's work is historical, rather than philosophical or critical, yet the subject is presented by periods, the characteristics of which are carefully studied. Extended readings from representative authors are given, the comparative method being constantly kept in view. Written work is required in the discretion of the instructor, both as fixing the student's grasp of the subject, and as further illustrating the principles of rhetoric.

6. **LITERARY INTERPRETATION AND CRITICISM—MASTERPIECES.** The senior year opens with a view of the philosophy of the development of our literature, and the principles of literary interpretation and criticism. This work is based upon approved texts, and is reinforced by lectures. The last half of the year is given to the study of masterpieces of the language in poetry and prose, including a critical reading of selected plays of Shakespeare. The course closes with a study of living writers.

Agriculture

Professor Burtis

Mr. Moorhouse

Mr. Riley Mr. Tourgee

The following analysis applies to students taking the specialized course in agriculture (see page 22). It indicates, also, however, the elective work in agriculture and horticulture which is offered in the other courses.

1. **STOCK-JUDGING.** Freshman year, spring term. A thorough training in score card work. Study of animal form as an index of qualities; selection of animals to give the greatest excellence in beef, dairy, mutton, wool, and pork products, and in efficiency in labor. One class period a week is devoted to the study of the principles of stock-judging, and three practicum periods a week are devoted to score card practice work at the barns, where the different animals are judged for the purposes for which they are raised.

2. **SOILS AND FERTILITY.** Sophomore year, fall term. Soils, origin, chemical and physical composition; classification; handling to obtain conditions best suited for plant growth; value of manure and fertilizers, their preservation and application.

3. **BREEDS OF LIVE STOCK,** Sophomore year, winter term. The leading breeds of cattle, sheep, swine, horses, and poultry are studied as to their origin, distribution, adaptability, and leading characteristics. The stock-judging work commenced in the spring term of the freshman year is continued during this term and particular attention is given to the official scale of points, or the standards adopted by the various associations of the different breeders.

4. **FEEDS AND FEEDING.** Junior year, fall term. Nutrition; composition of feeds and their preservation as affecting quality; compounding rations for growth, maintenance, fattening, and milk; feeding and preparing stock for market. The work is continued in the spring term of the senior year, when particular attention is given to the results of feeding experiments and methods of carrying on such work.

5. **FARM DAIRYING.** Junior year, winter term. A study is made of the methods and apparatus for the production and handling of dairy products in a wholesome and economical manner on the farm. Composition of milk and the causes that affect it and bring about changes. Practical work in milk testing, separating milk, ripening cream, churning, and preparing butter and milk for the market is given in the dairy room.

6. **ANIMAL BREEDING.** Junior year, spring term. The laws of heredity, variation, atavism, and correlation are given special attention. Prepotency and fecundity, and the influences that affect them are discussed. In-and-in breeding, line-breeding, cross-breeding, grading, and the formation of breeds are taken up in detail.

7. **CROPS.** Junior year, spring term. Choice, uses, and preservation; varieties and their improvements; planting and cultivation; rotations. Examination of crops in the field and from preserved samples given special attention.

8. **AGRICULTURAL PHYSICS.** Senior year, fall term. The study of soils commenced in the fall term of the sophomore year is continued here by taking up the more intricate points of soil physics, of the movement of water in soils, the water-holding power of different soils, and soil temperature. Irrigation and drainage are fully treated. Principles of draft, road construction, farm motors, and construction of farm buildings are subjects of study under this head.

9. **FARM ECONOMICS.** Senior year, winter term. Selection, purchasing, equipping, and management of farms; study of markets and marketing.

NOTE: For analysis of the course in agriculture in the School of Agriculture and Domestic Economy see page 51.

Horticulture

Professor Morris

The instruction in horticulture aims to give the student a thorough knowledge of the underlying principles of plant and fruit production, and of plant evolution. The instruction in forestry aims to afford an insight into the forest problems of the United States.

1. **GENERAL COURSE.** Fall term of freshman year. Study of orchard fruits and the cultivation and management of orchards. Winter and spring terms of sophomore year. Propagation of plants, and cultivation and management of small fruits and vegetables.

2. **POMOLOGY.** Winter term of sophomore year. Study of orchard fruits, and cultivation and management of orchards.

3. **VEGETABLES AND SMALL FRUITS.** Spring term of sophomore year. Study of vegetable gardening and small fruit culture.

4. **EVOLUTION OF CULTIVATED PLANTS.** Winter term of senior year. A study of the current hypotheses of organic evolution as applied to the modification of plants, particularly those in cultivation.

5. **PLANT BREEDING.** Spring term of senior year. Study and practice in plant breeding.

6. **FORESTRY.** Winter term of senior year. The instruction in forestry covers conditions of forest growth, methods of reproduction, preservation, and harvesting; economics of forestry; forest belts, forest reserves, and national parks of the United States.

NOTE: For analysis of the course in horticulture in the School of Agriculture and Domestic Economy see page 50.

Mechanical Engineering

Professor Chandler

Mr. Thomas

Mr. Little

The following analysis applies to students taking the engineering course (see page 23). It indicates also, however, the elective or regular work in the other courses as shown in the detailed outlines.

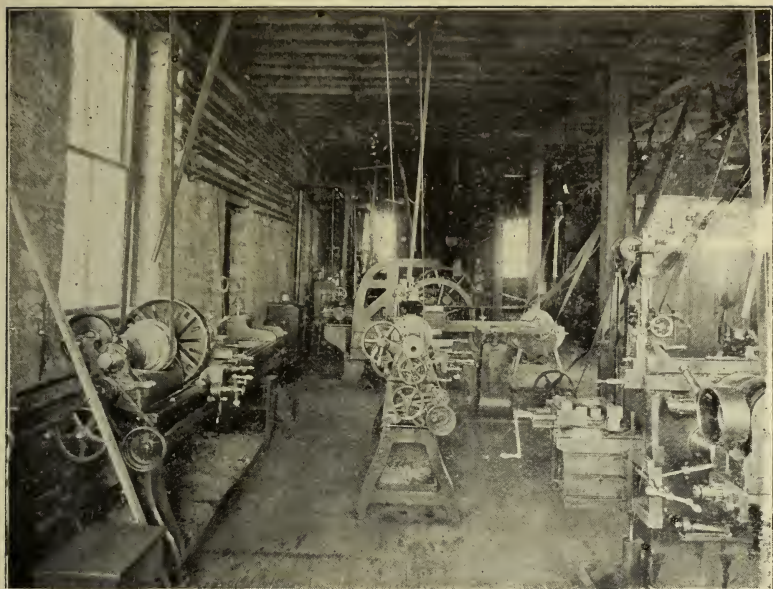
1. **FRESHMAN PHYSICS.** Freshman year, fall term. Elementary course in general physics.

2. **DESCRIPTIVE GEOMETRY.** Sophomore year, winter and spring terms. Orthographic projection of lines, planes, and surfaces. Axonometric projections, surfaces of the second order; intersections, shades and shadows, and linear perspective.

3. **MECHANICAL DRAWING.** Sophomore year; fall, winter, and spring terms, afternoon. Projection on right and oblique planes, intersections of surfaces and solids; machine sketching; making of complete working-drawings; tracing and blue-printing,

4. **KINEMATICS.** Junior year, fall term. Study and design of mechanical movements, including gearing, belting, links, etc.

Home Rule Press



MACHINE SHOP



CLASS IN MECHANICAL DRAWING

5. JUNIOR PHYSICS. Junior year, fall and winter terms. Advanced course in mechanics, sound, heat, light, and electricity.

6. APPLIED MECHANICS. Junior year, winter and spring terms. Statics, moment of inertia, hydrostatics, hydraulics, theory of structures, kinetics.

7. STEAM BOILERS. Junior year, fall term. Materials of construction, steam boiler design, care and operation of boilers.

8. INDICATORS AND VALVE GEARS. Junior year, winter and spring terms. Detailed study of valve gears and of valve setting; use of indicators.

9. THERMODYNAMICS. Senior year, spring term. Advanced discussion of the theory of heat engines.

10. MACHINE DESIGN. Senior year; fall, winter, and spring terms; with afternoon work in drawing in the fall and winter terms. Determination of the proper proportion of machine parts, such as screws, bolts, nuts, shafts, and pulleys; also the designing of various parts of the steam engine.

11. ELECTRICITY AND MAGNETISM. Junior year, spring term. Advanced study of electrostatics, magnetism, electric current, and batteries. The elements of alternating currents, electric lighting and power.

12. ELECTRICITY AND MAGNETISM PRACTICUM. Junior year, spring term. Measurement of magnetism, resistance, and electromotive force; study of batteries; use of galvanometers.

13. ELECTRICAL ENGINEERING. Senior year, fall, winter, and spring terms. Electromagnetism and magnetic circuit; direct and alternating current dynamos and motors; electric lighting; electric railways; systems of transmission and distribution.

14. ELECTRICAL ENGINEERING PRACTICUM. Senior year, fall and winter terms, afternoon. Tests of dynamos, motors, transformers; direct current, and one, two, and three phase systems; study of arc and incandescent lamps, measurement of power and efficiency.

15. WOOD WORKING. Freshman year, winter term. Bench work in wood: sawing, planing, and joining; center and chuck turning in wood. Instruction in care and use of tools.

16. PATTERN-MAKING AND FOUNDRY. Freshman year, spring term. Construction of patterns; molding in sand; core making; melting iron and pouring castings.

17. BLACKSMITHING. Junior year, spring term. Iron and steel forging; drawing, upsetting, welding, and tempering.

18. **MACHINE SHOP.** Junior year, winter and spring terms. Filing and chipping; metal work on lathes, planer, shaper, and milling machine.

19. **CIVIL ENGINEERING.** Junior and senior years. This will be introduced at the beginning of the next fall term, and will embrace the subjects of surveying, graphical statics, framed structures, and hydraulic, sanitation, highway, and irrigation engineering.

Mathematics and Astronomy

Professor Means

Mr. Lawrence

1. **HIGHER ARITHMETIC.** Fall term, sub-freshman year. A thorough course in advanced arithmetic giving special attention to the application of the principles of percentage to the solution of problems.

2. **ALGEBRA.** Winter and spring terms, sub-freshman year, and fall, winter, and spring terms, freshman year. A thorough drill in the elements of algebra, involving factoring, fractions, simple, simultaneous, quadratic, and indeterminate equations, inequalities, theory of exponents, logarithms; ratio, proportion, and variation; the binomial and exponential theorems; choice, chance, etc.

3. **GEOMETRY.** Winter and spring terms, freshman year, and fall term, sophomore year. The elements of plane and solid geometry, involving the relations of lines and planes in space, the methods of proving theorems, the areas of surfaces and volumes of solids, and the laws of variation in similar surfaces and solids.

4. **TRIGONOMETRY AND SURVEYING.** Winter and spring terms, sophomore year. The development and use of trigonometric formulæ, the solution of right and oblique triangles and polygons. Field work in surveying. Also, elements of goniometry. Logarithmic computation throughout the course.

5. **ANALYTICAL GEOMETRY.** Fall and winter terms, junior year. The reference of points and lines to co-ordinate axes, and the deduction of the equations of straight lines and curves of the conic sections. Also, higher plane curves.

6. **CALCULUS.** Spring term, junior year, and fall and winter terms, senior year. Differential calculus, development and application of fundamental principles and formulæ, integral calculus, applications in determining length of curves, area, maxima, minima, etc.

7. **ASTRONOMY.** Spring term, senior year. The solar system, discussion of position, size, density, rotation, and revolutions of planets; satellites and asteroids, nebulae, fixed stars and constellations, comets, astronomical directions, measurements, etc.



QUANTITATIVE LABORATORY



QUALITATIVE LABORATORY

Chemistry

Professor Holter

Mr. Stevens

1. **GENERAL COURSE.** All students in all courses are required to take chemistry throughout the sophomore year. In the fall term the non-metals are studied and discussed in the lecture room, and simple manipulations, preparation of salts and gases, and group separations are taught in the laboratory. In the winter and spring terms the metals are taken up in the lecture room and complete qualitative analysis worked out in the laboratory. Each student is supplied with a full set of apparatus suitable to his work and is required to spend at least two hundred hours in the laboratory during the year. It is found that each year there are students who work in the laboratory over two hundred and fifty hours. While the laboratory period is from 1:30 to 3:30, it is the custom, as well as the policy, of the department to open the laboratory immediately after the noon hour and allow students to remain until five o'clock if they desire to do so. Again, while there are assigned days for laboratory work in chemistry, all students working in the chemical laboratories have permission to work there on any other days so long as this work does not interfere with other college duties. In the lecture room special attention is given to the arithmetic of chemistry and the working out of chemical equations, and in these equations much importance is attached to their graphical structure. Experience teaches that without the arithmetical applications of the equations by means of numerous practical problems, the fundamental principles involved in the equations are wholly lost on the student. Text books used are: Pond's Inorganic Chemistry in the class room; and in the laboratory, Dennis and Clarke's Laboratory Manual and Green and Vanderleed's Qualitative Analysis.

2. **SPECIALIZED COURSE.** Junior year: Qualitative Analysis; using in the laboratory Talbot's work during the entire year, supplemented by Fresenius, Thorp, etc. Minimum number of hours, 260. In the class rooms the texts used are: Fall term, Remsen's Theoretical Chemistry; winter and spring terms, Perkin and Kipping's Organic Chemistry; and in the spring term three hours a week are devoted to a general discussion of mathematical and physical chemistry, Van Deventer's text being used. The recitations are fully supplemented by numerous discussions, lectures, and demonstrations.

Senior year: In the lecture room, in the fall term, special subjects along the lines of sanitary chemistry, foods and food production, pure water supplies, and sewage disposal are discussed. No text book is used but the lectures and discussions are based upon the material found in the numerous reference books in the college library. Metallurgy is taught in the winter term, Sexton's text-book being the one now used and

Thorp's Industrial Chemistry is taught during the winter and spring terms. Three hours a week are devoted to Agricultural Chemistry during the entire year in the lecture room.

The laboratory work has a wide range and includes the chemistry of experiment station work, metallurgy of iron and steel, assaying, sugar analysis, water analysis, sugar beet analysis, food adulterations and their detection, preparation of organic compounds, mineralogy, standardizing solutions, abstracting of chemical literature (in connection with special laboratory work), graduation thesis.

Botany and Entomology

Dr. Shaw

Mr. Woodworth

1. **ELEMENTARY BOTANY.** A study of plant relations and plant structures as presented in Coulter's Plant Studies, which is used as a text. Recitations, four hours per week, are supplemented by demonstrations with illustrative material. Practicum, two afternoons per week, is devoted, in the first half of the term, to the study of the structure of plant organs with reference to their functions; in the latter half of the term to studies of types representative of the great groups of plants.

Required in the spring term of all sophomores taking the general science course or the agricultural course.

2. **PLANT ANATOMY.** A study of the structure and development of the plant cell, followed by a study of the anatomy and histology of typical seed-plants. Recitations, three hours per week, are based on the morphological section of the Bonn text-book. Practicum, two afternoons per week, in which the general methods of botanical microtechnique are employed.

Required in the fall term of juniors in the agricultural course, and elective for juniors in the general science course.

3. **PLANT PHYSIOLOGY.** A study of the life processes of seed-plants. Recitations, three hours per week, based on the physiological section of the Bonn text-book. Practicum, two afternoons per week, consisting of observations and experiments selected mainly from Gaoung's Plant Physiology and MacDougal's Plant Physiology.

Required, in the winter term, of all juniors in the agricultural course, and elective for juniors in the general science course.

4. **CLASSIFICATION OF THE SPERMATOPHYTES.** The analysis and identification, in the laboratory, of a large number of the flowering plants of the local flora forms the basis of a study of the diagnostic characters of the leading families of the seed plants. Three morning hours and two afternoon periods are assigned to this work. Britton's



CHEMISTRY LECTURE ROOM



BOTANICAL LABORATORY

Manual of the Flora and Britton and Brown's Illustrated Flora are used for most of the identifications.

Elective in the spring term for juniors in the general science course.

5. **PLANT DISEASES.** The more common and economically important of the diseases of plants due to the presence of parasitic bacteria, myxomycetes, and fungi form the principal subjects of this course. Lectures and recitations twice per week follow somewhat the order of Massee's Text-book of Plant Diseases, which is used as a text. The practicum, two afternoons per week, includes work on the morphological characters of the pathogenic organisms, and culture and inoculation experiments with them.

Elective in the fall term for seniors in the general science course.

6. **MORPHOLOGY OF THE SPERMATOPHYTES.** A study of the comparative morphology and embryology of the seed plants. Lectures and recitations twice per week. Discussions of the subjects treated in Coulter and Chamberlain's works on the Morphology of the Gymnosperms, and the Morphology of the Angiosperms. Practicum, three afternoons per week, dealing mainly with sporogeny and embryogeny of selected types, and employing special methods of microtome technique.

Elective in the winter term for seniors taking the general science course.

7. **RESEARCH AND THESIS WORK.** Seniors in the general science course who elect to write their thesis in botany will choose subjects approved by the head of the department not later than the beginning of the winter term. These theses will be completed in the spring term. The subjects may be chosen from any of the lines of work of the botanical courses offered.

Seniors electing to write theses in agriculture or horticulture may have access to the books and collections of the department of botany and entomology, and secure aid from the instructors of this department.

8. **ENTOMOLOGY.** A study of the general anatomy and development of insects with reference to the habits of those of economic importance, and of the principal methods of controlling injurious insects, is followed by special study of the families of more important beneficial and injurious insects. Recitations, three hours a week. Text, Smith's Economic Entomology. Practicum, one afternoon each week, occupied with the study of the external anatomy and morphology of selected types of insects. Field work, the equivalent of a two hour practicum period each week, for the collection of specimens representative of various insect families, of specimens illustrating the life history of certain species, and of data on a special subject chosen for a paper by each member of the class.

Required in the spring term of all juniors in the agricultural course and of those in the general science course not specializing in chemistry.

NOTE: For analysis of the course in botany and entomology in the School of Agriculture and Domestic Economy see page 50.

Zoology and Veterinary Science

Dr. Lewis

Mr. Nicholson

The work in this department is arranged with the idea of giving students who take the course in biology or those who elect work in the department as thorough an understanding of animal biology as the time will permit. The greater portion of the work is arranged and given with the idea of familiarizing the student with the general principles of the structure, function, and development of the animal body. The special subject of veterinary medicine as applied to the recognition and treatment of animal diseases is given in the regular and special courses as offered by the agricultural department. An outline of the work follows:

1. **VETERINARY MEDICINE.** This work is given in both of the short courses offered by the agricultural department and in the regular agricultural course, senior year, winter term. The work is given in the form of lectures, recitations, and practical work. It is of practical character and comprises especially the recognition and treatment of the common animal diseases.

2. **PHYSIOLOGY.** Elementary physiology is given during the last half of the winter term and the spring term of the sub-freshman year. The work is given as lectures and recitations, supplemented by the use of models, skeletons, and charts.

3. **ZOOLOGY.** This subject is required of all students except those in the engineering courses, in the fall term of the sophomore year. The work includes the general principles of zoology and serves as an introduction to the advanced work in biology. Laboratory work is given four hours per week in dissecting types of the various groups of animals, the later portion of the work being devoted to the classification of vertebrates, especially birds. The museum contains collections of insects, birds, small mammals, and a considerable number of marine animals, all of which are available for class and laboratory work.

4. **HISTOLOGY.** An introductory study of animal tissues. Special attention will be given to the structure and function of the various tissues of the body. The laboratory work consists of the preparation, staining, sectioning, and mounting of tissues for microscopic work. The projection microscope is used in the lecture room. This subject is given in the fall term of the junior year.



ZOOLOGICAL LABORATORY



A CORNER OF THE MUSEUM

5. **ADVANCED PHYSIOLOGY.** Winter term of junior year. This term is devoted to detailed study of the special physiology of the blood, nervous system, digestion, etc., and in a comparative way the physiology of man and the lower animals. Mammalian dissection is taken up during the last half of the term. Discussion of general subjects in physiology is a part of the required work.

6. **CELLULAR BIOLOGY.** This work is given in the spring term of the junior year and consists of a systematic study of protoplasmic structure and function, the general properties of the cell as an independent organism and its function in the higher animal. The laboratory work consists of working out the standard methods employed in preparing material for studies of this character.

7. **EMBRYOLOGY.** This work is given during the fall term of the senior year and includes a detailed study of the development of vertebrates, using embryos of the chick and rabbit as types. The complete embryological history of the chick is studied as outlined by Foster and Balfour. In the laboratory work the student will be expected to become thoroughly familiar with the best methods used in work of this character. The projection microscope is used in the lecture room and material prepared by the class will be used for demonstration.

8. **BACTERIOLOGY.** The work in bacteriology extends over the winter and spring terms of the senior year and is required of all students except those in the engineering courses. This is a general course in bacteriology and the student is required to be thoroughly familiar with laboratory methods. The course in laboratory work requires the student to be familiar with the methods employed in isolating and cultivating bacteria, bacterial analysis of air, milk, water, etc. The subject is given with special reference to the relation of bacteria to disease. Diseases caused by protozoa and certain other animal parasites are studied in connection with the subject.

German and Latin

Professor Tucker

Miss Walker

The courses in German and Latin run through the freshman, sophomore, and junior years of the college. All courses leading to a degree include a certain amount of one or the other of these languages. This amount can be ascertained by reference to the detailed schedules. One of the main objects of the course is to give the student such a knowledge of German and Latin as will be of practical value to him in the study of the sciences. Throughout each course the technical relation of the language to the work of the institution is pointed out, explained, and emphasized. At the same time the other objects of language study are not

neglected: the study of the language in and for itself, as a means of general culture, and as a prerequisite to a more intelligent and a more comprehensive study of the vernacular. The courses in detail are as follows:

GERMAN. Freshman class. The work of this year is devoted to a thorough drill in pronunciation, the mastery of the forms and inflections of the various parts of speech, the study of elementary principles of syntax, and the reading of German prose. Memorizing of easy colloquial sentences and of a few selected poems; written exercises. Text books: Joynes-Meissner's German Grammar; Guerber, *Märchen und Erzählungen*; Storm, *Immensee*. (Fall term, five hours; winter and spring terms, four hours per term.)

Sophomore class. The work of this year is practically a continuation of that of the freshman year. Reading of narrative and descriptive prose; systematic drill in grammar and word formation. Composition work is begun, and one term of this year is devoted to the study of scientific German. Text books: Riehl, *Der Leibmedikus*; Wildenbruch, *Das edle Blut*; Baumbach, *Der Schwiegersohn*; Gore's German Science Reader; Bernhardt's German Composition; Joynes-Meissner's German Grammar. (Fall and winter terms, four hours; spring term, three hours a week.)

Junior Class. It is the aim of this course to broaden the student's vocabulary and knowledge of the language and literature by copious reading from standard German authors and by the study of German literature under the guidance of a suitable manual. Composition work continued. Parallel reading in general literature or in the science in which the student has chosen his special work. Text-books: Schiller, *Wilhelm Tell*; Lessing, *Minna von Barnhelm*; Heine, *Harzreise*; Harris's German Composition; Hosmer's German Literature. (Class meets three times a week throughout the session.)

LATIN. Freshman class. This class is employed mainly in mastering the forms of nouns, pronouns, verbs, adjectives, and adverbs, and in acquiring a vocabulary. The elementary rules of syntax are also studied and carefully explained. Careful attention is given to the translation of English into Latin and to the translation of such Latin as the time will permit. Text books: Collar's First Year Latin; *Gradatim* or *Viri Romæ* (Fall term, five hours; winter and spring terms, four hours a week).

Sophomore class. The work of this year is devoted to the study of Latin prose and the more difficult principles of Latin syntax. The selections for reading are supplemented by notes and grammatical references by the teacher. It is the purpose of these notes to assist in *accurate* translation, as well as to enable the student to see for himself the practical application of the rules of grammar. Weekly exercises in com-

position. Text books: Cæsar, *Gallic War*; Cicero, *Orations*; Allen and Greenough's *Grammar*; Bennett's *Latin Composition*. (Fall and winter terms, four hours; spring term, three hours a week).

Junior class. The work of this class is along the same lines as that of the preceding year. Prose composition emphasized with a view to strengthening the student's knowledge of Latin grammar; in connection with the translation, a brief study of the social and political life of the Romans. Throughout all the courses an attempt is made to secure a high degree of mental training, as well as to teach Latin as an invaluable aid to the study of English. Text books: Cicero, *Orations* and *Letters*; Sallust, *Catiline*; Moulton's *Exercises in Latin Syntax*; Allen and Greenough's *Grammar*. (Class meets three times a week throughout session.)

History and Political Science

Professor Hutto

This department gives instruction in general history, English history, constitutional law, political economy, business law, social and industrial history of the United States, current history, and psychology.

1. GENERAL HISTORY. Sub-freshman year, winter and spring terms, four hours each week. After a general view of oriental civilizations, with special reference to those which noticeably affected subsequent European conditions, special attention is given to Grecian and Roman history. The period of the middle ages is then taken up, followed by a study of modern history. The historic facts here taught are those of most value to the student in the pursuit of subsequent studies in this department. It is the constant thought to have the student discover something more than unrelated facts and dates—to trace causes and results, and to get at the story of the development of the race.

2. ENGLISH HISTORY. Sophomore year, winter term. A general view of the history of the English people, designed to prepare the student for the study of constitutional law and English literature, and to give him a better understanding of United States history. Text, "Leading Facts of English History", by D. H. Montgomery.

3. CONSTITUTIONAL LAW. Junior year, fall and winter terms, five hours each week. The constitutional law here taught is general. The course opens with a study of Greek and Roman laws that became constitutional by usage, and follows their progress and influence through the middle ages and their effects on the formation of fundamental laws in the modern nations. The student is taught the origin of our constitution and the reasons for its provisions, limitations, granted powers, etc. "The State" by Woodrow Wilson is the text used.

4. **POLITICAL ECONOMY.** Senior year, winter term, five hours each week. The nature and laws of wealth, labor, capital, money, credit, taxation, production, and distribution are taught with special reference to the industrial arts.

5. **LAW.** Senior year, fall term, three hours each week. The student uses a text, but this is supplemented by twenty-eight lectures, covering those laws of business that are believed to be useful to him in his actual business life. It is especially designed to give the student a foundation for "Business Forms and Correspondence."

6. **SOCIAL AND INDUSTRIAL HISTORY OF THE UNITED STATES.** Senior year, fall term, three hours each week. The history of the United States is a prerequisite to admission to the college; but it is thought that a more philosophical view of the subject should be afforded the student when he reaches maturer years.

7. **SOCIOLOGY.** Senior year, fall term, four hours each week. The student is taught the origin and scope of society; the natural history of a society; social anatomy and physiology; social psychology and pathology; and the laws governing reform. The text is "An Introduction to the Study of Society", by Small and Vincent, and the scope of this work is enlarged by lectures.

8. **PSYCHOLOGY.** Junior year, spring term; five hours each week. While the student is invited to discuss such prominent theories as double consciousness, mental evolution in man, hallucination, hypnotism, etc., he is constantly drilled in the practical rules for the proper development of the perceptive faculty, the cultivation of imagination and memory, and the proper direction of the emotions and the will. The text book is by Reuben Post Halleck, "Psychology and Physic Culture".

9. **CURRENT HISTORY.** Spring term, senior year. A study of current events throughout the world, and of present social, industrial, political, and religious conditions in the leading nations. Domestic and foreign magazines and newspapers will constitute the text for this course.

Domestic Economy

Miss Landes

Miss Morrow

The purpose of introducing the study of domestic economy into the college course is to afford a training in the special subjects which pertain to the arrangement and management of every home. When these are considered in their close relation to the sciences, the care of the household, instead of appearing irksome or ignoble, becomes interesting, dignified, and a means of broad intellectual culture.



A CLASS IN SEWING



DINING ROOM

As far as possible, the work of this department correlates with the other college studies. It is subject to the usual regulations regarding entrance requirements, examinations, and class records. An outline of the course planned for the ensuing year follows:

FRESHMAN YEAR. In both cooking and sewing the work is continuous throughout the year.

Cooking. The study of food materials as regards chemical composition, nutritive value, suitable combinations, and digestibility receives particular attention. The fuels in common use, and the construction and management of various kinds of stoves are considered. Practical work consists of the preparation of simple dishes from ordinary materials. Care is taken that the student learns to reason from cause to effect, and vice versa.

Sewing. Instruction comprises the various stitches used in hand sewing, including the different seams, hems, patching, darning, etc. Later, the use, care, and management of sewing machines is taught. The drafting, cutting, and making of simple underwear completes the practical work of the year.

SOPHOMORE YEAR. The subject of domestic economy is taken up only in the spring term. Cooking and millinery are studied.

Cooking. Marketing receives attention, the selection of meat being taught from charts, and by visits to meat markets. The selection, cost, and care of other ordinary food materials are considered; also food production, manufacture, and adulteration. Work along practical lines is a continuation of that given in the freshman year, but of an advanced character.

Millinery deals with the application of line, form, color, and texture in the making and trimming of hats from buckram, straw, felt, velvet, and tulle. Economy and care of materials are taught in the renovating of silk, satin, velvet, feathers, etc.

JUNIOR YEAR. Domestic economy extends throughout the year, training being given in cooking, table service, social observances, sewing, hygiene, and sanitation.

Cooking. Entire meals of a simple nature are prepared and served. Invalid cookery is also treated.

Table Service. Besides the actual serving of ordinary meals, lectures are given regarding the service required for ceremonious occasions. Attention is paid to the laundering of table linen; care of silver, glass, and china; also, the general care of the dining room.

Social Observances. Discussions consider the usages of good society, including manners, conversation, forms of address, introductions, entertainments, calls, etc.

Sewing. Drafting from exact measurements, cutting and fitting are taken up, each student making an entire suit.

Hygiene. In this course it is the purpose to give a practical knowledge of the functions of the human body, and to teach personal responsibility in the care and improvement of health.

House Sanitation. Attention is given to the situation and surroundings of the house; also water supply, drainage, ventilation, heating, lighting, furnishing, and cleaning.

SENIOR YEAR. During the winter term, a course in domestic economy is offered. The subjects treated are home nursing, textiles, art needlework, and home economics.

Home Nursing. The course in home nursing is designed to enable women to care intelligently for cases of sudden illness or accident; and to perform the duties of a nurse when trained service is not employed. Precautions against the spread of disease, use of disinfectants, and quarantine regulations are considered.

Textiles. Under this topic, discussions deal with the development of primitive industries; the growth of fibres; their properties, manufacture, adulteration, and comparative economic value.

Art Needle-work. The aim of this subject is to give the student an insight into such cultural development of the race as has been gained through handwork; to develop good taste in the individual; and thus to assure homes of taste.

Home Economics. This includes discussions regarding the evolution of the house; homes of various peoples as affected by climatic, industrial and social conditions; cost of living; divisions of income; household accounts; cash and credit system; savings and investments; domestic service.

Public Speaking

This work is given for the present by the President of the college, assisted by Mr. Lawrence. All sophomores, and all juniors except those in the courses in engineering, are required to take it during the winter term. So far as the work is carried at present the aim is to secure, in as great a degree as possible, ease and grace of ordinary public expression.

Geology and Mineralogy

A course in general and economic geology is given in the senior year. As stated on another page (see Professor Holter's statement under "Chemistry") the college is well equipped for practical and scientific work in mineralogy.

Stenography and Typewriting

Mr. Cawood

Those desiring to enter this department must be prepared at least to enter the sub-freshman class, and must be not less than eighteen years of age. Students having a good common school education may finish the course in shorthand in one school year, nine months. The success and proficiency of the student will depend entirely upon his energy, ability, and previous training. The student who devotes nine months to this work is better prepared to take up the duties of an office or an amanuensis than the student who devotes only five or six months to it. The general requirements of a competent stenographer do not consist simply of the ability to write shorthand. There must be a knowledge of composition, punctuation, capitalization, grammar, spelling, and the proper arrangement of sentences. For this reason we require students before finishing the course to pass a satisfactory examination upon the subjects named above in addition to the regular examination in shorthand.

Typewriting requires from three to six months of steady application to gain a satisfactory speed. Students studying stenography will also be required to learn typewriting.

In addition to the work done in stenography and typewriting, students are drilled in the use of letter press copying, indexing, letter filing, manifolding, mimeographing, etc.

For finishing in this department a speed of one hundred words per minute of new and miscellaneous matter from dictation, the same to be read back accurately and promptly, is required. Upon the typewriter the student must be able to write thirty words per minute from his shorthand notes, the work to be free from errors.

Business Course

Mr. Cawood

This course extends through the year. In addition to the instruction in stenography and typewriting outlined above, a complete course is given in bookkeeping, its several branches and specialties, in commercial law, business forms, and business correspondence. All students in this course are required to take English under the direction of the faculty.

Printing

Superintendent Gelder

This subject is given in the winter and spring terms of the sub-freshman year to those students who are proficient in spelling and writing, and at all times to such students as desire instruction therein. The student is first taught the mechanical requirements of composition.



FORGE ROOM



SHORT COURSE CLASS IN MECHANICS

After becoming familiar with this work special attention is given to spelling, capitalization, syllabication, punctuation, and to correcting proof. The student is also given practical instruction in imposition, making ready on platten presses, and feeding and care of job presses. The college and station jobbing work, including catalogues and announcements, is done here, and a monthly publication, *The College Paper* is issued from the press. Students assist in all this work, and *The College Paper* is a student publication, though speaking officially for the college.

Drawing

All students of the freshman class take freehand drawing during the fall term. Men alone in this class take geometrical drawing during the winter term. For the work in mechanical drawing reference is made to the outline of the department of Engineering, page 30.

Laboratory and Field Work

Paramount stress is laid upon the experimental and practical work of the laboratory, and the afternoons are given over to this character of instruction. In agriculture and horticulture, the livestock, the implements of husbandry, the green-house, the forestry plantations, and the farm itself with its operations, constitute the laboratory. In engineering, the wood working shops, machine shops, electrical shops, foundry, and blacksmith shops are in operation for practical work by the students. In chemistry, the quantitative and qualitative laboratories are occupied by students practically every afternoon throughout the academic year. In botany and entomology the afternoon work is devoted to examination, analysis, and classification under the microscope. In zoology and comparative anatomy, practical work is given in the afternoon in connection with living, mounted and unmounted subjects and with models. In bacteriology the laboratory work is devoted to the identification of bacteria, the action of disinfectants, the growing of colonies, the examination of substances for bacteria, etc. Freehand and mechanical drawing, bookkeeping, and surveying are also given in the afternoon. In domestic economy the kitchen, dining room, and sewing room are constantly occupied for practical work in these lines.

School of Agriculture and Domestic Economy

As indicated elsewhere this course covers two years of twenty weeks each, from October 17 to March 15. Experience has shown that many young people come to this institution who for various reasons can remain

but one or two years. This course is arranged to the end of giving them a measure of the practical and technical work which is given in a more ample form later in the course. At the same time work in the common school branches is given throughout the course, so far as it can be done without prejudice to the scientific and practical work of this department. The course is so arranged that the work in agriculture or domestic economy scheduled for the two years may be taken in one, without carrying the common school studies. This will be permitted in the case of students who are well grounded in the common branches, or in the case of adult students regardless of their preparation. The special work in agriculture will be for boys and men alone, and will be based upon the following outline:

LIVESTOCK AND STOCKJUDGING. This work is taken up during the fall term of the first year. The most important breeds of cattle, sheep, swine, and horses are studied as to their leading characteristics and adaptability; methods of handling these for best results are given due consideration. The stockjudging work is carried on at the barn where the student is first given score card work and then comparison of the various individuals and breeds.

DAIRYING. In the fall term of the second year the best methods of handling and profitably disposing of the milk on the farm are taken up. The need of care and cleanliness is emphasized, and simple and economical methods are given briefly and illustrated. A well equipped dairy building gives opportunity for the practical work in butter making and milk testing.

POULTRY. The time allotted to this study in the fall term of the second year is devoted to a study of the most important breeds of chickens and other fowls. The rearing, management, dressing, and marketing of poultry are important features considered.

SOILS AND CROPS. During the spring term of the second year a study of the characteristics of soils as influencing their water-holding power, the liberation of plant food and its availability, are taken up, as well as the general questions of soil tillage. Following this comes the study of the adaptability of crops to different conditions and for different purposes, their selection, improvement harvesting, and marketing.

STOCK FEEDING. This subject is taken up during the spring term in the second year. In the work the composition of plants and animals is compared; the nutritive value of the different feeds is studied; compounding rations for fattening and growing the different kinds of stock is an important and interesting feature of the work.

VETERINARY MEDICINE. A practical study of the recognition and treatment of the common animal diseases.



CLASS IN STOCKJUDGING



CLASS IN STOCKJUDGING

HORTICULTURE AND FLORICULTURE. School of Agriculture, fall term of second year. A study of the most successful methods of planting and cultivating fruit trees, berries, grapes, flowers, etc. in this climate. Lectures and text. The work in gardening will be practical work in planting seed, transplanting plants, budding grafting, and pruning.

ENTOMOLOGY. The commoner insects and means for their destruction are considered. Different types of spraying apparatus and a large collection of insects are used to illustrate and supplement the lectures.

BOTANY. The fundamental principles of germination, plant growth, and seed production are presented, and a general consideration of the adaptation of different plants to varying conditions, thus enabling the student to acquire a more thorough understanding of the growth of plants and their requirements.

The work in domestic economy is designed for all young women in this department; the aim being to give such training as shall fit them for the duties of everyday life. It is considered desirable that the students acquire a certain amount of technical skill; and that they learn to work with neatness, carefulness, and despatch. Yet especial care is taken to develop the reasoning faculties, and to show that the affairs of the household are governed by scientific principles and not by "luck". Cooking, sewing, hygiene, and sanitation are the subjects taught.

FIRST YEAR. Cooking. Simple dishes are prepared from materials such as are used in the average household. The ordinary foods are studied from the standpoints of nutritive value and digestibility as affected by the various methods of cooking.

Hygiene. This is given in a very practical way, the endeavor being to make it comprehensible even to those who have not studied physiology.

Sewing. Handwork occupies the first year, the student making samples which show the various stitches, seams, hems, patches, etc.

SECOND YEAR. Cooking. In this year the students are able to take up advanced work in cookery. Some practice is given in table service. Food production and manufacture are studied.

House Sanitation. This subject deals with the general care of the house, cleaning and cleansing agents, ventilation, heating, lighting, disposal of waste, etc.

Sewing. The care and management of sewing machines is taught. Each student learns to draft from exact measures; also to cut and fit. All are expected to make at least one entire suit.

Special Studies

Students, not candidates for degrees, may take such special work as they desire, subject to the approval of the President; Provided, That no student shall be entitled to take such special work until he is adjudged to be able to enter the sub-freshman class; Provided further, That students of mature age, not candidates for a degree, may elect special studies, with the consent of the President, without being compelled to fulfill the entrance requirements above mentioned, if in the judgment of the head of the department concerned, such student can successfully carry the work. Regular students in good standing may take work additional to their prescribed course with the consent of the President and the heads of the departments concerned. A student not in good standing in any regular course will not be permitted to change to a special course.

Electives

Students must hand to the secretary of the faculty, not later than June first in each year a list of first and second choice electives which they have chosen for the next year. Work in the departments of Botany, Chemistry, Domestic Economy, Mathematics, and Zoology is continuous, and in order to elect specific work in any of these departments all previous work must have been taken. This statement does not apply to agricultural chemistry during the senior year.

General Information

Location The seat of the Agricultural and Mechanical College is Stillwater, in Payne county, a city of four thousand people, most beautifully and healthfully situated. It is on the line of the Oklahoma Eastern branch of the Atchison, Topeka, and Santa Fe railroad.

Moral Influence All the leading churches are represented in Stillwater and the students are encouraged to attend and participate in their services. As a matter of fact, the young people's societies of the several churches are sustained very largely by students from the college. A Young Men's Christian Association and a Young Woman's Christian Association are actively engaged in the numerous and beneficial lines of work characteristic of these organizations among students.

Board and Rooms Board with room in private families can be obtained for \$2.50 to \$3.00 per week. Furnished rooms \$1.50 to \$3.00 per month, if two occupy the room. A considerable portion of the students board in students' clubs, thus reducing expenses in that line to \$1.75 to \$2.00 per week.

Other Expenses Tuition is free. An incidental fee of one dollar per term is charged students entering from Oklahoma and Indian Territories. A fee of five dollars per term is charged students under twenty-one years of age entering from elsewhere. Text books will cost from \$3.00 to \$5.00 per term. Special students in stenography and typewriting are charged \$2.00 per term for the use of typewriter. A deposit of \$2.00 per term is required of all students in the sophomore class in chemistry to cover laboratory breakage.

Library The use of the college library is free to all students. Every department of the college is largely represented in it, and it contains, besides, numerous reference books, and the principal home and foreign periodicals. Students are permitted to consult freely, in the reading room, the reference books and periodicals, and to take to their rooms all other books under proper restrictions.

Literary and Other Societies General literary societies are always in operation among the students. The Chemistry Association, the Biological Club, the Mechanical Engineering Society, and the Agricultural Society are organizations of special students in the lines indicated, for supplementary work. The Athletic Association has charge of all local college sports, Field Day exercises (April 22), and of the interests of the institution in the intercollegiate meets. The Oratorical Association has charge of the representation of this college in the preliminary and intercollegiate oratorical contests.

Athletics Interest in athletic sports is deliberately fostered and encouraged by the authorities. Special benefit to the individual student is noted in connection with the general sports which culminate in the annual intercollegiate meets. Nearly all of the young men of the college show in their physical condition the salutary influence of this training, and of the regular and temperate habits that must accompany it. Basketball and tennis are participated in by the young women. A gymnasium building is in process of erection and will be completed and suitably equipped for use during the coming year. It is intended, also, to employ a physical director and to provide systematic training in the development and conserving of the powers of the body.

Self Help The operations of the college farm and experiment station are carried on very largely by student labor, for which reasonable remuneration is allowed. This, in connection with other positions about the college buildings and grounds, and such opportunities as are afforded in the city, has enabled a very considerable number of students practically to make their way through the course. Many students are thus assisted and encouraged every year—the preference being given to those whose college work is meritorious. It must not be gathered from this that the college engages to afford employment sufficient to enable every worthy young man to complete the course without other resources. With the growth of the institution has come an increased demand for this employment which it is impossible to meet in full.

Prizes During the past year a number of permanent prizes have been established for excellence in various features of work. The Wikoff Prize, offered by Hon. Frank J. Wikoff, president of the board regents, is for scholarship in the senior class, and carries \$25, \$15 for the first and \$10 for the second place. The President's Prize of \$10 is offered for excellence in scholarship in the freshman class. The Tucker Prize (trophy or medal), by Professor Robert H. Tucker, is offered for the best English theme written by a sophomore. The first Wikoff Prize was won last year by Harry I. Stevens, of Meeker, and the second by Abbie E. Nelson, of Stillwater. The President's Prize was won by John L. Ganz, of Butler, Mo., and the Tucker Prize by Mary B. Atkinson, of Stillwater.

Roll of Students

Abbreviations: *Gen. Sc.*, General Science Course; *Agr.*, Agricultural Course; *Engin.*, Engineering Course.

Seniors

Amos, Ethel C.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Ball, Hermond L.	-	-	<i>Engin.</i>	-	-	Clinton
Bilyeu, Robert I.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Blue, Frank R.	-	-	<i>Engin.</i>	-	-	Stillwater
Broom, Rose E.	-	-	<i>Gen. Sc.</i>	-	-	Goodnight
Burlison, William L.	-	-	<i>Agr.</i>	-	-	Hunter
Burnett, Roy E.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Comstock, Harry	-	-	<i>Engin.</i>	-	-	Idaho Springs, Colo.
Dalton, Clarence G.	-	-	<i>Gen. Sc.</i>	-	-	Broken Arrow, Ind. T.
English, William L.	-	-	<i>Agr.</i>	-	-	Stillwater
Hartenbower, Andrew C.	-	-	<i>Agr.</i>	-	-	Stillwater
Hastings, Alice A.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Hines, G. Ernst	-	-	<i>Engin.</i>	-	-	Blackwell
Johnstone, John C.	-	-	<i>Gen. Sc.</i>	-	-	Blackwell
Knauss, Elmer J.	-	-	<i>Agr.</i>	-	-	Stillwater
Nelson, John A.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Lewis, Carrie E.	-	-	<i>Gen. Sc.</i>	-	-	Yates
Rush, Walter S.	-	-	<i>Engin.</i>	-	-	Guthrie
Spalding, John A.	-	-	<i>Agr.</i>	-	-	North Enid
Tankersley, Lola M.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Treeman, Ralph W.	-	-	<i>Agr.</i>	-	-	Perry
Wiley, Raymond C.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Woodworth, J. Earl	-	-	<i>Agr.</i>	-	-	Perry

Juniors

Atkinson, Mary B.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Braden, Gertrude M.	-	-	<i>Gen. Sc.</i>	-	-	Watseka, Ill.
Brown, Charles W.	-	-	<i>Gen. Sc.</i>	-	-	Meeker
Carson, Ross L.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Chandler, Emma A.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Clark, Arthur C.	-	-	<i>Engin.</i>	-	-	Stillwater
Clayton, Robert L.	-	-	<i>Gen. Sc.</i>	-	-	Shawnee
Eberle, Dovie V.	-	-	<i>Gen. Sc.</i>	-	-	Glencoe
Howell, Carl E.	-	-	<i>Engin.</i>	-	-	Blackwell
Lowry, Theo M.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
McBride, Earl L.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
McElroy, Clarence H.	-	-	<i>Agr.</i>	-	-	Jennings
Miller, Bertha	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Olentine, Fred B.	-	-	<i>Gen. Sc.</i>	-	-	Sapulpa, Ind. T.
Osborne, John C.	-	-	<i>Engin.</i>	-	-	Bellefonte, Ark.
Semke, Grace E.	-	-	<i>Gen. Sc.</i>	-	-	Covington
Smith, Stewart G.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Talbot, George L.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Walker, Veda R.	-	-	<i>Gen. Sc.</i>	-	-	Glencoe
Wilson, James	-	-	<i>Gen. Sc.</i>	-	-	Garber

Sophomores

Bras, Ruth Roxie	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Chester, Bertha M.	-	-	<i>Gen. Sc.</i>	-	-	Stillwater
Daniels, C. J.	-	-	<i>Gen. Sc.</i>	-	-	Cisco, Texas

Dougan, Elmer	-	-	Engin.	-	-	Pawnee
Dorey, Lewis H.	-	-	Agri.	-	-	Homestead
English, Maude M.	-	-	Gen. Sc.	-	-	Renfrow
Froug, William	-	-	Gen. Sc.	-	-	Stroud
Ganz, John L.	-	-	Engin.	-	-	Butler, Mo.
Hancock, Avery V.	-	-	Agri.	-	-	Morrison
Hoke, Harry	-	-	Engin.	-	-	Stillwater
Hoke, Charles. E.	-	-	Agri.	-	-	Stillwater
Kinsey, Atha C.	-	-	Gen. Sc.	-	-	Cisco, Texas
Lantz, Arthur G.	-	-	Engin.	-	-	Blackwell
Lantz, Calvin R.	-	-	Engin.	-	-	Blackwell
Morrison, Edwina	-	-	Gen. Sc.	-	-	Stillwater
Mott, Isaac E.	-	-	Engin.	-	-	Deer Creek
Ratcliffe, J. Anderson	-	-	Agri.	-	-	Perkins
Reeve, Henry W.	-	-	Agri.	-	-	Choctaw City
Reeve, Charles T.	-	-	Engin.	-	-	Choctaw City
Taylor, S. Jeanette	-	-	Gen. Sc.	-	-	Renfrow
Varney, S. J.	-	-	Gen. Sc.	-	-	Idaho Springs, Colo.
Wamsley, Grover C.	-	-	Gen. Sc.	-	-	Dutton
Wharry, Robert M.	-	-	Engin.	-	-	Jefferson
Wiar, Pearl L.	-	-	Gen. Sc.	-	-	Stillwater

Freshman

Ashenhurst, T. Wilson	-	-	Gen. Sc.	-	-	Binger
Baruth, Elsie R.	-	-	Gen. Sc.	-	-	Crescent
Baird, Robert O.	-	-	Gen. Sc.	-	-	Cuba, Kans
Baker, George S.	-	-	Gen. Sc.	-	-	Pawhuska
Bennett, Paul	-	-	Engin.	-	-	Marshall
Blue, J. Riley	-	-	Agri.	-	-	Stillwater
Caton, Orpha	-	-	Gen. Sc.	-	-	Stillwater
Carter, Elsie M.	-	-	Gen. Sc.	-	-	Stillwater
Cawood, Hervey R.	-	-	Engin.	-	-	Palestine, Ill.
Clark, Frank J.	-	-	Engin.	-	-	Deer Creek
Cole, Frank	-	-	Engin.	-	-	Stillwater
Cook, Earl R.	-	-	Engin.	-	-	Guthrie
Cox, Roscoe N.	-	-	Engin.	-	-	Tryon
Coyle, John W.	-	-	Agri.	-	-	Guthrie
Ericson, Earl D.	-	-	Engin.	-	-	Stillwater
Evans, Thomas M.	-	-	Engin.	-	-	Chandler
Francis, Victor H.	-	-	Engin.	-	-	Piedmont
Gager, Ernest H.	-	-	Engin.	-	-	Glencoe
Gelder, John F.	-	-	Gen. Sc.	-	-	Stillwater
Green, D. Oliver	-	-	Gen. Sc.	-	-	Perth
Grimes, Lawrence S.	-	-	Gen. Sc.	-	-	Stillwater
Hall, Howard W.	-	-	Gen. Sc.	-	-	Stillwater
Hamon, Fannie E.	-	-	Gen. Sc.	-	-	Stillwater
Hamon, Benjamin F.	-	-	Agri.	-	-	Stillwater
Hamon, Chester A.	-	-	Engin.	-	-	Stillwater
Harrison, Luella A.	-	-	Gen. Sc.	-	-	Stillwater
Henson, James O.	-	-	Engin.	-	-	Shawnee
Holmes, Oliver W.	-	-	Agri.	-	-	Stillwater
Holmes, D. Lynn	-	-	Gen. Sc.	-	-	Stillwater
Janeway, Leonore R.	-	-	Gen. Sc.	-	-	Stillwater
Jones, Camp A.	-	-	Gen. Sc.	-	-	Stillwater
Kennedy, Eugene	-	-	Engin.	-	-	Enid
Lettier, Clarence R.	-	-	Gen. Sc.	-	-	Stillwater
Lovett, A. Lester	-	-	Agri.	-	-	Hunter

Lyon, Glenn F.	-	-	Gen. Sc.	-	Stillwater
McCowan, LeRoy M.	-	-	Agri.	-	Chilocco
McPheeters, Marguerite I.	-	-	Gen. Sc.	-	Stillwater
Moore, Raymond H.	-	-	Gen. Sc.	-	Stillwater
Ray, Lottie	-	-	Gen. Sc.	-	Keokuk Falls
Semke, Stella M.	-	-	Gen. Sc.	-	Covington
Sewell, Clyde L.	-	-	Engin.	-	Stillwater
Short, Arthur L.	-	-	Engin.	-	Marshall
Stephens, Cecil C.	-	-	Gen. Sc.	-	Yale
Stover, Ida M.	-	-	Gen. Sc.	-	Stillwater
Talbot, Gertrude A.	-	-	Gen. Sc.	-	Stillwater
Thraillkill, Loris C.	-	-	Gen. Sc.	-	Cleveland
West, Maude E.	-	-	Gen. Sc.	-	Stillwater
Znamenacek, Ed	-	-	Engin.	-	Glencoe

Sub-Freshmen

Barnes, Gladys A.	-	-	-	-	Orlando
Bate, Ada E.	-	-	-	-	Stillwater
Blue, True C.	-	-	-	-	Stillwater
Briggs, T. LeRoy	-	-	-	-	Stillwater
Burwell, Walter A.	-	-	-	-	Stillwater
Carpenter, Jesse	-	-	-	-	Council
Crawford, Charles W.	-	-	-	-	Apache
Cross, Frank D.	-	-	-	-	Stillwater
Comstock, Frank	-	-	-	-	Idaho Springs, Colo.
Dent, Nellie B.	-	-	-	-	Stillwater
Dittrick, Lewis C.	-	-	-	-	Lahoma
Durham, Mae S.	-	-	-	-	Stillwater
Einwachter, Otto	-	-	-	-	Billings
Gallagher, Edward C.	-	-	-	-	Deer Creek
Gougler, Frank A.	-	-	-	-	McCloud
Grunewald, Samuel G.	-	-	-	-	Persimmon
Hager, Alice J.	-	-	-	-	Stillwater
Hagar, Hyral S.	-	-	-	-	Stillwater
Hamilton, F. Clair	-	-	-	-	Marena
Hamilton, J. Homer,	-	-	-	-	Avery
Hansen, Hans C.	-	-	-	-	Calumet
Hays, Frank A.	-	-	-	-	Stillwater
Hemphill, Ora L.	-	-	-	-	Stillwater
Henderson, Retta C.	-	-	-	-	Yale
Hunt, Fred L.	-	-	-	-	Guthrie
Jensen, George	-	-	-	-	El Reno
Johnson, Robert K.	-	-	-	-	Pawhuska
Kenyon, Rodney E.	-	-	-	-	Ponca
Kerr, Jay	-	-	-	-	Stillwater
Kerr, Elinor	-	-	-	-	Stillwater
Kirkpatrick, I. Cecil	-	-	-	-	Stillwater
Kirkpatrick, V. Victoria	-	-	-	-	Stillwater
Lynch, Harold W.	-	-	-	-	Hennessey
Lynch, Henry J.	-	-	-	-	Stroud
Martin, Carl F.	-	-	-	-	Stillwater
Masters, Howard S.	-	-	-	-	Stillwater
McCune, B. Stanley	-	-	-	-	Nardin
McDowell, Charles. L.	-	-	-	-	Driftwood
McBride, Iva A.	-	-	-	-	Stillwater
McBride, Jessye W.	-	-	-	-	Stillwater

Plummer, John E.	-	-	-	-	-	-	Deer Creek
Stauffer, Harry A.	-	-	-	-	-	-	Stillwater
Terry, Boyd C.	-	-	-	-	-	-	Billings
Triplett, Grover C.	-	-	-	-	-	-	Stillwater
Wagner, Leona G.	-	-	-	-	-	-	Perkins
Washington, Jerry C. Jr.	-	-	-	-	-	-	-Marietta, Ind. T.
Woodrum, Elizabeth	-	-	-	-	-	-	Lansburg, Kans.
Young, Harry F.	-	-	-	-	-	-	Billings
Young, Lizzie A.	-	-	-	-	-	-	Billings

Specials

Allnutt, Maggie W.	-	-	-	-	-	-	Stillwater
Badraun, Meda A.	-	-	-	-	-	-	Stillwater
Baird, Roddle C.	-	-	-	-	-	-	Lincoln Center. Kans.
Barrett, Edith L.	-	-	-	-	-	-	Ripley
Bellis, Clara M.	-	-	-	-	-	-	Stillwater
Bock, Emma	-	-	-	-	-	-	Stillwater
Briggs, Nellie M.	-	-	-	-	-	-	Stillwater
Brown, Leah H.	-	-	-	-	-	-	Oklahoma City
Campbell, Rob B.	-	-	-	-	-	-	Apache
Carson, Annie H.	-	-	-	-	-	-	Stillwater
Collins, James E.	-	-	-	-	-	-	-Shiloh
Cronk, Archibald	-	-	-	-	-	-	El Dorado, Kans.
Cunningham, Mildred	-	-	-	-	-	-	Ingalls
Dalton, Lela M.	-	-	-	-	-	-	Broken Arrow, Ind. T.
Diggs, Blanche Wise	-	-	-	-	-	-	Stillwater
Dolde, Emma Swope	-	-	-	-	-	-	Stillwater
Fisher, Guy E.	-	-	-	-	-	-	Hennessey
French, Grace	-	-	-	-	-	-	Stillwater
Greiner, Matilda M.	-	-	-	-	-	-	-Oklahoma City
Hardy, Sibley R.	-	-	-	-	-	-	Stillwater
Hart, Bert M.	-	-	-	-	-	-	- Enid
Harrison, Ruby F.	-	-	-	-	-	-	Stillwater
Harbison, Jesse A.	-	-	-	-	-	-	Billings
Hayne, William	-	-	-	-	-	-	Stillwater
Hays, Agnes B.	-	-	-	-	-	-	Stillwater
Houston, Hamie B.	-	-	-	-	-	-	Stillwater
Hughes, Josephine E.	-	-	-	-	-	-	Stillwater
Hurst, Charity T.	-	-	-	-	-	-	Stillwater
Ingham, Maude	-	-	-	-	-	-	Glencoe
Johnstone, Lovette M.	-	-	-	-	-	-	Stillwater
Johnstone, Pet	-	-	-	-	-	-	Stillwater
Kenworthy, Arlie M.	-	-	-	-	-	-	Perkins
Kerr, Hope	-	-	-	-	-	-	Stillwater
Landis, Tean	-	-	-	-	-	-	Stillwater
Lewis, Flossie B.	-	-	-	-	-	-	Stillwater
Lobingier, Dessie O.	-	-	-	-	-	-	Stillwater
Martin, Julia B.	-	-	-	-	-	-	Cushing
Martin, Fred F.	-	-	-	-	-	-	Stillwater
McCoy, Wilburn G.	-	-	-	-	-	-	Guthrie
McCracken, Ned R.	-	-	-	-	-	-	Guthrie
McPheeters, Martha R.	-	-	-	-	-	-	Stillwater
McPheeters, Nelle H.	-	-	-	-	-	-	Stillwater
McTaggart, Winnifred M.	-	-	-	-	-	-	Stillwater
Means, Pliney E.	-	-	-	-	-	-	McCloud
Montgomery, Mamie A.	-	-	-	-	-	-	Stillwater
Morgan, Hiram	-	-	-	-	-	-	Stillwater

McPheeters, William H.	-	-	-	-	-	Stillwater
McReynolds, Clarence E.	-	-	-	-	-	Stillwater
Mitchell, Lloyd C.	-	-	-	-	-	Stillwater
Mitchell, Lulu G.	-	-	-	-	-	Stillwater
Neerman, Frank W.	-	-	-	-	-	Stillwater
Newcomb, Harley C.	-	-	-	-	-	Stillwater
Noble, Anna M.	-	-	-	-	-	Stillwater
Norris, B. Quincy	-	-	-	-	-	Stillwater
Potter, Edgar L.	-	-	-	-	-	Perkins
Pribbenow, Wilhelm F.	-	-	-	-	-	Chandler
Perry, Ralph	-	-	-	-	-	Cushing
Shannon, Harvey. S.	-	-	-	-	-	Uncas
Sherburne, Chas. R.	-	-	-	-	-	Cordell
Spalding, Isaac	-	-	-	-	-	North End
Stover, Nannie J.	-	-	-	-	-	Stillwater
Straub, Otto T.	-	-	-	-	-	Stillwater
Sullivan, Perry L.	-	-	-	-	-	Pauls Valley
Tate, J. Arnold	-	-	-	-	-	Stillwater
Taylor, M. Austella	-	-	-	-	-	Stillwater
Taylor, Will S.	-	-	-	-	-	Stillwater
Tryon, Frank H.	-	-	-	-	-	Empire City, Kans.
Tankersley, Percy A.	-	-	-	-	-	Stillwater
Thatcher, Edward T.	-	-	-	-	-	Stillwater
Webb, Maggie A.	-	-	-	-	-	Stillwater
Winters, N. Elmer	-	-	-	-	-	Cashion
Williams, George R.	-	-	-	-	-	Ingalls
Williams, Stewart L.	-	-	-	-	-	Cisco, Texas
Worley, Adele C.	-	-	-	-	-	Stillwater
Workman, Albert C.	-	-	-	-	-	Stillwater
Weiss, Thomas F.	-	-	-	-	-	Choctaw
Yates, Bertha M.	-	-	-	-	-	Marshall

Business Course

Anderson, Rex E.	-	-	-	-	-	Woodward
Arnold, Hugh R.	-	-	-	-	-	Ardmore, Ind. T.
Arnold, Martha E.	-	-	-	-	-	Ardmore, Ind. T.
Baker, Mae	-	-	-	-	-	Pawhuska
Bobbitt, Josephine	-	-	-	-	-	Stillwater
Bourdette, Mable A.	-	-	-	-	-	Coyle
Callahan, Orville P.	-	-	-	-	-	Apache
Clark, Clarence M.	-	-	-	-	-	Fairfield, Iowa
Cole, Eva	-	-	-	-	-	Stillwater
Dawson, Ina L.	-	-	-	-	-	Stillwater
Edwards, Myrtle M.	-	-	-	-	-	Medford
French, Marguerite A.	-	-	-	-	-	Perkins
Gore, D. Fuller	-	-	-	-	-	Lawton
Hill, Ernest A.	-	-	-	-	-	Stillwater
Houston, Louretta	-	-	-	-	-	Stillwater
Ingalsbe, Nettie L.	-	-	-	-	-	Perkins
Lawson, Ruby J.	-	-	-	-	-	Rawdon
League, Drusie M.	-	-	-	-	-	Stillwater
Lowry, Orlo C.	-	-	-	-	-	Stillwater
Masters, Vera L.	-	-	-	-	-	Stillwater
Maxwell, Lutone	-	-	-	-	-	Hunter
Munger, Kathleen J.	-	-	-	-	-	Stillwater
Oliver, Roy	-	-	-	-	-	Shiloh
Pappe, Richard	-	-	-	-	-	Kingfisher

McDonald, M.	-	-	-	-	-	-	Stillwater
McGregor, G. E.	-	-	-	-	-	-	Glencoe
McIlwain, Charles	-	-	-	-	-	-	Lone Wolf
Means, George	-	-	-	-	-	-	Stillwater
Merris, Elmer,	-	-	-	-	-	-	Chilocco
Millis, Roy	-	-	-	-	-	-	Stillwater
Millis, D. H.	-	-	-	-	-	-	Stillwater
Modenbach, O. F.	-	-	-	-	-	-	Cereal
Molnike, L. P.	-	-	-	-	-	-	El Reno
Morris, J. W.	-	-	-	-	-	-	Stillwater
Morris, A. M.	-	-	-	-	-	-	Stillwater
Morgan, T. H.	-	-	-	-	-	-	Stillwater
Musselman, J. E.	-	-	-	-	-	-	Medford
Myers, Lewis C.	-	-	-	-	-	-	Stillwater
Myers, William	-	-	-	-	-	-	Stillwater
Nelson, Craton	-	-	-	-	-	-	Stillwater
Nord, Henry A.	-	-	-	-	-	-	Elgin
Norrie, E. B.	-	-	-	-	-	-	Stillwater
Ottenger, J. C.	-	-	-	-	-	-	Lexington
Owen, Ellis	-	-	-	-	-	-	Ponca City
Paris, T. S.	-	-	-	-	-	-	Jeffersnn
Parks, R. K.	-	-	-	-	-	-	Stillwater
Paullin, D. C.	-	-	-	-	-	-	Newkirk
Peairs, C. A.	-	-	-	-	-	-	Chilocco
Peters, F. H.	-	-	-	-	-	-	Dane
Peters, W. R.	-	-	-	-	-	-	Dane
Phelps, W. H.	-	-	-	-	-	-	Autwine
Pospisil, Frank	-	-	-	-	-	-	Stillwater
Potter, Lee	-	-	-	-	-	-	Stillwater
Potter, Thomas	-	-	-	-	-	-	Stillwater
Potter, James	-	-	-	-	-	-	Stillwater
Pound, L. B.	-	-	-	-	-	-	Stillwater
Pound, T. S.	-	-	-	-	-	-	Stillwater
Pound, W. L.	-	-	-	-	-	-	Stillwater
Procter, J. U.	-	-	-	-	-	-	Mehan
Ratliffie, Charles	-	-	-	-	-	-	Perkins
Ritchey, L. W.	-	-	-	-	-	-	Stillwater
Roberts, A. O.	-	-	-	-	-	-	Stillwater
Robinson, J. Z.	-	-	-	-	-	-	Glencoe
Sawyer, Bert	-	-	-	-	-	-	Enid
Sayre, W. A.	-	-	-	-	-	-	Lela
Sayre, W. A.	-	-	-	-	-	-	Glencoe
Shearer, C. C.	-	-	-	-	-	-	Stillwater
Sitlington, F. O.	-	-	-	-	-	-	Edmond
Sollers, O. W.	-	-	-	-	-	-	Stillwater
Specht, L. F.	-	-	-	-	-	-	Piedmont
Spencer, R. M.	-	-	-	-	-	-	Glencoe
Spillane, Neal	-	-	-	-	-	-	Stillwater
Spitler, Chester J.	-	-	-	-	-	-	Yukon
Stone, C. H.	-	-	-	-	-	-	Stillwater
Stovall, G. W.	-	-	-	-	-	-	Stillwater
Straub, David	-	-	-	-	-	-	Stillwater
Stucker, W. J.	-	-	-	-	-	-	Stillwater
Sullivan, Herbert	-	-	-	-	-	-	Lawton
Tate, William	-	-	-	-	-	-	Stillwater
Tate, George	-	-	-	-	-	-	Stillwater

Taylor, L. A.	-	-	-	-	-	-	Stillwater
Tillion, Frank	-	-	-	-	-	-	Stillwater
Tipton, W. R.	-	-	-	-	-	-	Perkins
Todd, A. L.	-	-	-	-	-	-	Stillwater
Vitek, Amos	-	-	-	-	-	-	Stillwater
Wadley, J. C.	-	-	-	-	-	-	Stillwater
Walker, C. C.	-	-	-	-	-	-	Glencoe
Walsworth, C. W.	-	-	-	-	-	-	Enid
Watson, C. O.	-	-	-	-	-	-	Stillwater
Watson, V. A.	-	-	-	-	-	-	Stillwater
Weber, Ernest	-	-	-	-	-	-	Newkirk
Wells, T.	-	-	-	-	-	-	Stillwater
Wersling, J.	-	-	-	-	-	-	Blackwell
White, Ewers	-	-	-	-	-	-	McLoud
Whitebear, Blake	-	-	-	-	-	-	Chilocco
Willard, W. H.	-	-	-	-	-	-	Shawnee
Williams, W. R.	-	-	-	-	-	-	Stillwater
Withers, A. G.	-	-	-	-	-	-	Stillwater
Wright, B.	-	-	-	-	-	-	Medford
Wright, William	-	-	-	-	-	-	Perkins
Yokum, N. H.	-	-	-	-	-	-	Stillwater
Young, C. W.	-	-	-	-	-	-	Stillwater

School of Agriculture and Domestic Economy

Allen, Eugene B.	-	-	-	-	-	-	Fairmont
Atkinson, Lester	-	-	-	-	-	-	Fairmont
Bahr, William H.	-	-	-	-	-	-	Driftwood
Baker, Charles R.	-	-	-	-	-	-	Pawhuska
Baker, William J.	-	-	-	-	-	-	Drace
Bentley, William	-	-	-	-	-	-	Coyle
Bezdicheck, Frank F.	-	-	-	-	-	-	Elgin
Blackwood, Fern E.	-	-	-	-	-	-	Billings
Blanton, William T.	-	-	-	-	-	-	El Reno
Bobbitt, Clifford T.	-	-	-	-	-	-	Stillwater
Brown, Odie A.	-	-	-	-	-	-	Meeker
Burks, William G.	-	-	-	-	-	-	Paul's Valley
Calkins, James W.	-	-	-	-	-	-	Stillwater
Cloninger, Obed C.	-	-	-	-	-	-	Hickory, N. Car.
Cole, Lulu	-	-	-	-	-	-	Stillwater
Concs, Fred G.	-	-	-	-	-	-	Lamont
Crume, Nancy E.	-	-	-	-	-	-	Stillwater
Dixon, Oliver T.	-	-	-	-	-	-	Orlando
Durham, William J.	-	-	-	-	-	-	Stillwater
Eagles, Zalia J.	-	-	-	-	-	-	Cushing
Eggleston, Harry R.	-	-	-	-	-	-	Binger
Einwachter, George	-	-	-	-	-	-	Billings
Fairchild, Sylvia	-	-	-	-	-	-	Hennessey
German, Grover G.	-	-	-	-	-	-	Stillwater
German, Thomas R.	-	-	-	-	-	-	Stillwater
German, David S.	-	-	-	-	-	-	Stillwater
Gosney, Ernest H.	-	-	-	-	-	-	Granton
Gould, Robert L.	-	-	-	-	-	-	Kingfisher
Hale, Clarence P.	-	-	-	-	-	-	Stillwater
Hale, Inez C.	-	-	-	-	-	-	Stillwater
Hamon, Robert J.	-	-	-	-	-	-	Stillwater
Harrison, Warren	-	-	-	-	-	-	Eakly

Heflin, Marlin	-	-	-	-	-	-	Shawnee
Hengel, George B.	-	-	-	-	-	-	Stillwater
Henry, Martin	-	-	-	-	-	-	Verdan
Hickerson, Clarence C.	-	-	-	-	-	-	Pawhuska
Hudson, Blanche J.	-	-	-	-	-	-	Stillwater
Hunt, Oral A.	-	-	-	-	-	-	Pawhuska
Ingham, Gertie M.	-	-	-	-	-	-	Glencoe
Ingmire, Curtis	-	-	-	-	-	-	Garber
Johnson, Ralph M.	-	-	-	-	-	-	Stillwater
Kessler, Albert E.	-	-	-	-	-	-	Perkins
Kirkpatrick, Katie C.	-	-	-	-	-	-	Stillwater
Lewis, Lloyd C.	-	-	-	-	-	-	Stillwater
Markwell, Thomas	-	-	-	-	-	-	Servado
Maxwell, Don C.	-	-	-	-	-	-	Hunter
McMindes, Willis P.	-	-	-	-	-	-	Pond Creek
McPheeters, T. Ralph	-	-	-	-	-	-	Stillwater
Meridith, Clarence	-	-	-	-	-	-	Stillwater
Mitchell, Ethel M.	-	-	-	-	-	-	Stillwater
Moody, Elizabeth	-	-	-	-	-	-	Ringwood
Moody, Vurn C.	-	-	-	-	-	-	Ringwood
Nickerson, Hugh	-	-	-	-	-	-	Stillwater
Nickerson, Tressie E.	-	-	-	-	-	-	Orlando
Noble, Hubert A.	-	-	-	-	-	-	Stillwater
Norrie, Elsie B.	-	-	-	-	-	-	Stillwater
Norrie, Katy A.	-	-	-	-	-	-	Stillwater
Nuss, Eva E.	-	-	-	-	-	-	Stillwater
Potter, Ida L.	-	-	-	-	-	-	Perkins
Potter, Nora E.	-	-	-	-	-	-	Perkins
Pound, Obed	-	-	-	-	-	-	Stillwater
Pray, Pearl M.	-	-	-	-	-	-	Stillwater
Richards, Emma K.	-	-	-	-	-	-	Stillwater
Rinderhager, Ida M.	-	-	-	-	-	-	El Reno
Ritchey, Belle M.	-	-	-	-	-	-	Stillwater
Ritchey, Letha M.	-	-	-	-	-	-	Stillwater
Roberson, Howard D.	-	-	-	-	-	-	Stillwater
Roberson, Nora	-	-	-	-	-	-	Stillwater
Sanders, George E.	-	-	-	-	-	-	Altona
Schiewe, Emil	-	-	-	-	-	-	Morrison
Schultz, Arthur F.	-	-	-	-	-	-	El Reno
Smith, C. Ray	-	-	-	-	-	-	Stillwater
Speidel, John M.	-	-	-	-	-	-	Oklahoma City
St. Clair, Brutus E.	-	-	-	-	-	-	LeRoy
Stevens, Harold W.	-	-	-	-	-	-	Stillwater
Strong, George	-	-	-	-	-	-	Granton
Stovall, Bertha M.	-	-	-	-	-	-	Stillwater
Stovall, Sadie E.	-	-	-	-	-	-	Stillwater
Swaney, Willard B.	-	-	-	-	-	-	Sparks
Taylor, L. Stinnett	-	-	-	-	-	-	Ardmore, Ind. T.
Tillion, Byrd	-	-	-	-	-	-	Stillwater
Tillion, Charles	-	-	-	-	-	-	Stillwater
Tillion, Robert	-	-	-	-	-	-	Stillwater
Tillotson, Hilary P.	-	-	-	-	-	-	Coyle
Triplett, Kate C.	-	-	-	-	-	-	Stillwater
Vanderpool, Lucile S.	-	-	-	-	-	-	Stillwater

Venable, Lila R.	-	-	-	-	-	-	-	Quay
Venable, Zella M.	-	-	-	-	-	-	-	Quay
Waddell, Otto R.	-	-	-	-	-	-	-	Tulsa, Ind. T.
Waddell, Harry S.	-	-	-	-	-	-	-	Tulsa, Ind. T.
Washington, R. Love	-	-	-	-	-	-	-	Marietta, Ind. T.
Walters, Maggie P.	-	-	-	-	-	-	-	Stillwater
Walters, Minnie D.	-	-	-	-	-	-	-	Stillwater
West, Ola B.	-	-	-	-	-	-	-	Stillwater
West, S. Marvin	-	-	-	-	-	-	-	Stillwater
Whistler, Guy	-	-	-	-	-	-	-	Sac and Fox
White, Clyde W.	-	-	-	-	-	-	-	Ripley
White, Rupert R.	-	-	-	-	-	-	-	Pawnee
Witteman, Ada P.	-	-	-	-	-	-	-	Marena
Whittington, Willis F.	-	-	-	-	-	-	-	Ardmore, Ind. T.
Yager, Frank	-	-	-	-	-	-	-	Luther

Total, excluding repetition of names - 555

Alumni**1896**

Arthur W. Adams, Bank Cashier	-	-	Hugo, Ind. T.
J. Homer Adams, Student, University of Kansas	-	-	Lawrence, Kans.
Frank E. Duck, Farmer	-	-	Stillwater, Okla.
A. Edward Jarrell,	-	-	Pueblo, Colo.
Ervin G. Lewis, Bank Cashier	-	-	Ramona, Ind. T.
Oscar M. Morris, Horticulturist, College	-	-	Stillwater, Okla.

1897

George W. Bowers, Railroad Service	-	-	Enid, Okla.
Andrew N. Caudell, Entomologist, Agri. Dept.	-	-	Washington, D. C.
Jessie O. (Thatcher) Bost, At Home	-	-	Stillwater, Okla.

1898

John T. Clark, Government Educational Service	-	-	Manila, P. I.
Augustus G. Ford, Chemist Experiment Station, and Instructor in Chemistry	-	-	Stillwater, Okla.
Norris T. Gilbert, Bank Cashier	-	-	Madill, Ind. T.
Thomas J. Hartman, Bank Cashier	-	-	Deer Creek, Okla.
Clinton Morris, Superintendent Iron Works	-	-	Iron Gate, Va.
Emma H. (Swope) Dolde, At Home	-	-	Stillwater, Okla.
Blanche M. (Wise) Diggs, At Home	-	-	Stillwater, Okla.

1899

Noah P. Bullock, Merchant	-	-	Fairfax, Okla.
Clarence R. Donart, Bank Clerk	-	-	Ripley, Okla.
Minnie A. (Dysart) Teter, At Home	-	-	Cushing, Okla.
Francis M. Greiner, Chemist, Iron Works	-	-	Ensley, Ala.
Cora A. Miltimore, Librarian, College	-	-	Stillwater, Okla.
S. Earl Myers, Bookkeeper	-	-	Shawnee, Okla.
Arthur B. McReynolds, Publisher	-	-	Lompoc, Calif.
Charles E. Regnier, Bank Cashier	-	-	Okmulgee, Ind. T.

1900

Arthur W. Anderson, Lawyer	-	-	Woodward, Okla.
Cora M. (Donart) Coffey, At Home	-	-	Lawton, Okla.
Thomas T. Goff, Instructor, Gem City Business College,	-	-	Quincy, Ill.
John S. Malone, Merchant	-	-	Parker, Okla.
Louis C. Miller, Chief Division Forest Planting	-	-	Washington, D. C.
George W. Stiles, Jr., Bureau of Animal Industry	-	-	Washington, D. C.

1901

R. Bradford Hurst, U. S. Marine Service	-	-	Guam, Ladrone Islands
Kate A. Jewett, Student	-	-	Edmond, Okla.
Charles L. Kezer, Prof. Latin, Central Normal	-	-	Edmond, Okla.
Arthur C. Lewis, Ass't State Entomologist	-	-	Atlanta, Ga.
Velma Walker, At Home	-	-	Stillwater, Okla.

1902

A. Bondy Anderson, Santa Fe Railway System	-	-	Topeka, Kans.
Sarah S. Carson, County Superintendent	-	-	Stillwater, Okla.
A. Warren Flower, Bookkeeper	-	-	Kemmerick, Wash.
Gertrude Hunt, At Home	-	-	Guthrie, Okla.
George M. Janeway, Bank Cashier	-	-	Skiatook, Ind. T.
Charles V. Jones, Lawyer	-	-	Yates Center, Kans.
Ralph Kratka	-	-	Caldwell, Kans.
Chester H. Lowry, Lawyer	-	-	Ann Arbor, Mich.
Samuel A. McReynolds, University of Kansas	-	-	Lawrence, Kans.

Monroe J. Otey, Secretary, College and Station	Stillwater, Okla.
Howard F. Pigg, General Electric Co.	- Schenectady, N. Y.
Frank L. Rector, Bureau of Animal Industry	- Washington, D. C.
R. Rex Shively, Drug Clerk	- Stillwater, Okla.
Charles E. Smeltzer, Chemist, New Jersey Zinc Co.	- Iola, Kans.
Wallace T. Thornberry	- Kansas City, Mo.
Ethel V. Walker, Ass't in English and Latin, Coll.	- Stillwater, Okla.
Belle Walker, At Home,	- Stillwater, Okla.
Marion M. Woodson, Principal High School	- Hobart, Okla.

1903

Horace S. Gulick, Chemist, Iron Works	- E. St. Louis, Ill.
George W. Hoover, Ass't in Bur. of Chemistry	- Washington, D. C.
R. Morton House, Westinghouse Electric Co.	- Pittsburg, Pa.
Mamie G. Houston, Teacher	- Stillwater, Okla.
Nina B. Hurst, Teacher	- Stillwater, Okla.
Mary (Jarrell) Hartman, At Home	- Deer Creek, Okla.
Ransom S. Kenyon, General Electric Co.	- Schenectady, N. Y.
Robert H. Kerr, Assistant Chemist, Md. Agr. Coll.	- College Park, Md.
William E. Kinder, Supt. Schools	- Cushing, Okla.
Henry J. Lincoln, Santa Fe System	- Topeka, Kans.
Henry F. McBride, General Electric Co.	- Schenectady, N. Y.
Maud I. Miller, Teacher	- Stillwater, Okla.
Charles E. Morrow, Student, Univ. of Kans.	- Lawrence, Kans.
Jessie E. Morrow, Ass't in Dom. Econ., Coll.	- Stillwater, Okla.
Mary A. Neilsen, Teacher,	- Perry, Okla;
Stella C. Nelson, Teacher	- Stillwater, Okla.
Lila E. Nelson, Teacher Science, High School	- Butte, Mont.
Cyrus W. Nelson, Ass't Bur. of Chemistry	- Washington, D. C.
Esther A. North, At Home	- Stillwater, Okla.
Abbott G. Robinson, Law Student, U. of Kans.	- Lawrence, Kans.
Bertha M. Ruble, Teacher, City Schools	- Enid, Okla.
Florence K. Walker, Stenographer	- Glencoe Okla.

1904

Renzo D. Bowers, Law Student	- Stillwater, Okla.
Frederick F. Chandler, Bethlehem Steel Co.	- S. Bethlehem, Pa.
Samuel B. Durham, Farmer	- Stillwater, Okla.
J. Carleton Gilbert,	- Port Arthur, Tex.
Porter N. Guynn, Illinois Steel Co.	- S. Chicago
Clyde M. Hamblin, Electrician, Light Plant	- Newkirk, Okla.
Edw. L. Jones, Government Electrician	- Fort Logan, Colo.
John W. Kidd, Atlas Engine Co.	- Indianapolis, Ind.
Amos E. Lovett, Indian Service	- Mt. Pleasant, Mich.
Vern Marple, Bank Cashier	- Jennings, Okla.
John F. McBride, General Electric Co.	- Schenectady, N. Y.
Fred W. McCartney	- Stillwater, Okla.
Bernice Morgan, Teacher, City Schools	- Stillwater, Okla.
Abigail E. Nelson, Teacher	- Stillwater, Okla.
Harry I. Stevens, Jr. Chemist Iron Works	- Iron Gate, Va.
William A. Tarr, Teacher	- Enid, Okla.
Maud E. Thoroughman, Teacher	- Perkins, Okla.
Jos. W. Thornberry, Ranch Superintendent	- Prineville, Ore.
Faye B. Walker, Teacher, City Schools	- Cushing, Okla.
George F. Wickle, General Electric Co.	- Schenectady, N. Y.
Alpheus C. Withers, Teacher	- Glencoe, Okla.



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